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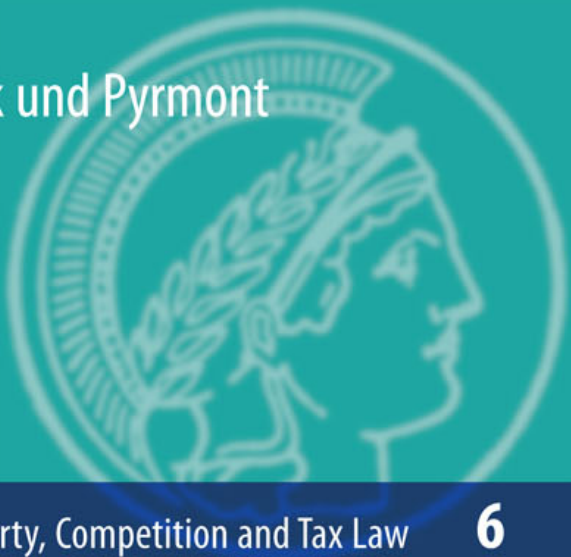

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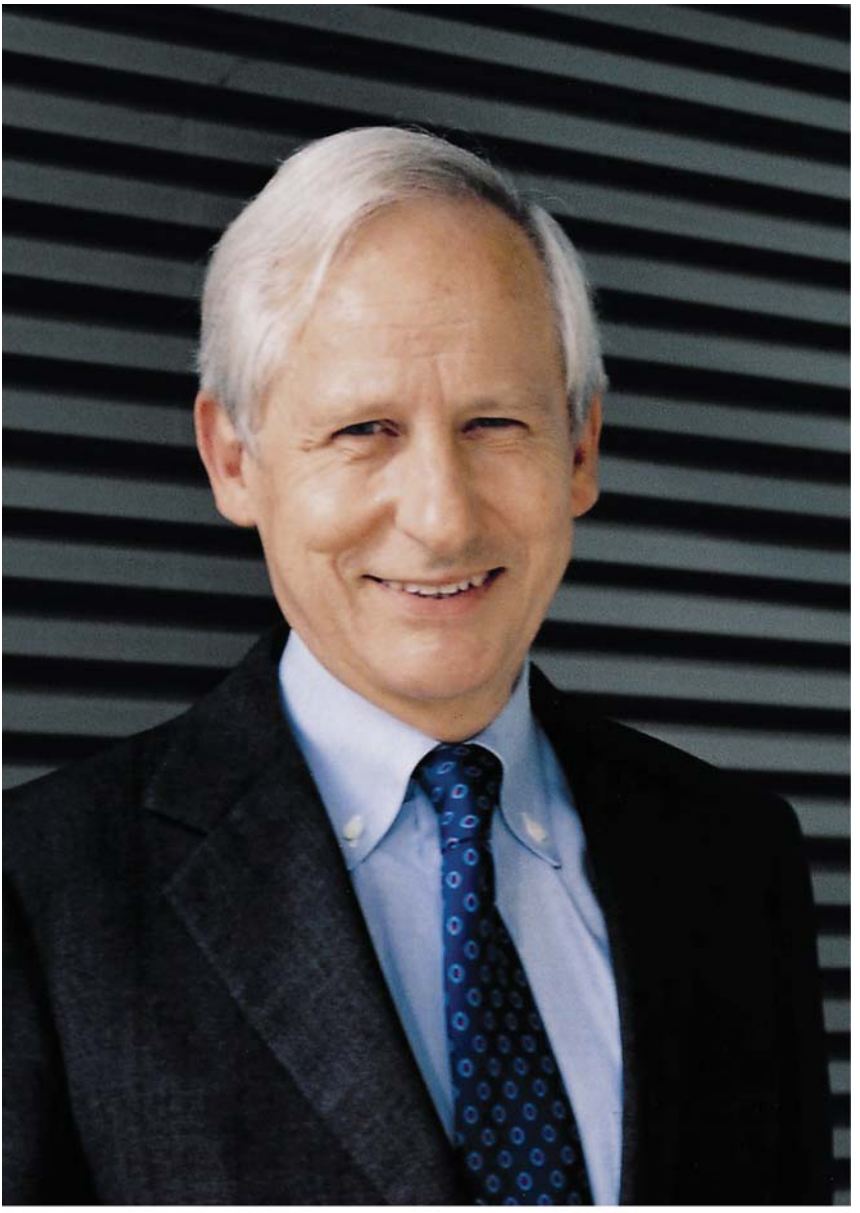
Patents and Technological Progress in a Globalized World

Liber Amicorum Joseph Straus

Springer

Max Planck Institute for Intellectual Property,
Competition and Tax Law



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Liber Amicorum Joseph Straus

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Preface

On December 14, 2008, Joseph Straus will celebrate his 70th birthday, which is the occasion and reason for the present *liber amicorum* honouring his lifelong dedication to and achievements in research and teaching in the field of intellectual property, especially patent law. Friends, colleagues, and pupils in more than 15 different countries in Asia, America and Europe have written 60 articles providing legal, economic and policy perspectives on the challenges raised by 'Patents and Technological Progress in a Globalized Economy'.

Among the many issues addressed in this book are fundamental questions of substantive patent and utility model law (chapter 1); the relationship of exclusive rights and competition, focussing both on inherent limitations of intellectual property law (chapter 2) and limitations imposed by competition laws (chapter 3); the rapid development of specific technical fields such as biotechnology (chapter 4); employee invention law (chapter 5); questions of procedure, enforcement and liability (chapter 6); the relationship of intellectual property law to unfair competition law (chapter 7); the need for territorially limited IP laws to address trans-national circumstances (chapter 8); recent developments in national IP and competition law (chapter 9) and public policies in intellectual property law (chapter 10). The overall theme reflects Joseph Straus's pronounced interest in the patent system and the challenges that it faces, both on a national and international level, an interest and expertise which is evidenced by his many publications in the field (listed in chapter 11).

It is the authors' sincere hope that Joseph Straus will take pleasure in reading these articles, and that the articles will provide stimulation and inspiration for his further academic work, even though, or perhaps especially because, he may not fully agree with some of the conclusions or proposals. It is the heartfelt wish of the contributors and the editors that Joseph Straus enjoy many further years of fruitful scholarly pursuits, and that he remain active on the international patent scene and continue to speak out on the needs of intellectual property.

Munich/Washington, August 2008 The Editors

A Portrayal of Joseph Straus

Rainer Moufang

1. Introduction

On December 15, 2008, one day after his actual birthday, an outstanding patent scholar is celebrating his 70th birthday. This is unlikely to be a very private party. An impressive number of friends and colleagues are expected to gather the very same day in his academic home, the Max Planck Institute at Munich's Marstallplatz, in order to congratulate and pay tribute to this distinguished grandmaster of intellectual property law. In addition, following the venerable tradition of civil law countries to honor great legal scholars with a *liber amicorum*, a mélange or a Festschrift, some of us have taken the opportunity to contribute to the present birthday gift.

The picture of a person which we keep in our minds is often formed in those moments where he or she impressed or touched us the most. When we think of Joseph Straus, it may well be that we hear his calm voice in a big conference amphitheatre presenting the fruits of a deep and thorough analysis comprising one or more 'legal discoveries'; that we see him in the center of a heated public discussion on the merits of patent protection expanding persuasive arguments with patience but firmness; that we observe him motivating students or collaborators with fine humor; or that we listen to very personal advice in his office long after usual working hours.

Nevertheless, it is the panegyrist's task to present the person to be honored in a more objective manner. Thus an attempt is made in the following to give account of the main stages and achievements in Joseph Straus' academic career and to review the leitmotivs of his work. It is obvious that, due to the vast amount of noteworthy items, a selection has to be made and that also this picture is incomplete.

2. Joseph Straus' career

1. Joseph Straus was born in Trieste, is of Italian nationality and has Slovenian roots. After having received his Law Diploma in 1962 from the University of Ljubljana, he managed to be accepted as the first Ph.D. candidate of Friedrich-Karl Beier, the Max Planck Institute's spiritual father and long-time managing director. His doctoral thesis, completed in 1968 at the University of Munich and published as volume no. 19 of a prestigious collection of monographs, the Schriftenreihe zum gewerblichen Rechtsschutz, focused on the law of competition in (former) Yugoslavia.[1] After several years as an attorney in private practice in Tel Aviv, New York and Munich, Joseph Straus decided to return to science and to accept Prof. Beier's invitation to

[1] STRAUS, Das Wettbewerbsrecht in Jugoslawien – Eine entwicklungsgeschichtliche und systematische Darstellung mit Hinweisen auf das deutsche Recht, Cologne etc. 1970.

join the research staff of the Max Planck Institute as head of department in 1977. This was the beginning of an intense and trusting collaboration between both scholars on many occasions, including research management and preparation of expert opinions. The academic tandem co-authored numerous articles and studies, the most important of them being a monograph on the legal protection of scientific research results[2] which contained a critical analysis of the Geneva Treaty on the International Recording of Scientific Discoveries and made several suggestions for accommodating scientists' needs for protection within patent law. In the same years, Joseph Straus was responsible for the research on various topics such as European patent law, the Yugoslavian IP system and patent information. In addition he successfully managed the Max Planck Institute's library, the world's most complete collection of books and journals in the field of intellectual property – a small detail which shows a characteristic feature: to be prepared to commit himself, whenever necessary, also to time-demanding and energy-consuming duties even though they might promise only little reward.

2. In the last two decades of the past century, the luminosity of his scientific oeuvre continued to increase. Although he wrote on many other subjects as well – ranging from issues of patent and employees' inventions law to issues of copyright and performers' rights – his principal field of research should become the complex interface of biotechnology and patent law. From the perspective of a young Ph.D. student making his first steps in the same area, it was fascinating to watch with a mixture of admiration and incredulity how fast Joseph Straus accumulated a vast treasury of knowledge about most of the ramifications of the interface and soon became its leading international expert. Not afraid to tread on uncharted territory and instilled by a genuine interest, he entered into a fruitful dialogue with molecular biologists, plant and animal breeders, ethicists and economists. As a result he was able to properly analyze highly sophisticated interdisciplinary issues and to contribute essentially to the development of the international debate and legislative policy in this area. In recognition of these achievements, he *inter alia* received the Science Award 2000 of the Foundation for the German Science (Stifterverband für die Deutsche Wissenschaft).

In the same period, Joseph Straus considerably expanded his teaching activities and became a truly international lecturer. He finished his habilitation at the University of Ljubljana which appointed him as a full Professor of Intellectual Property Law in 1986: a wise decision which would benefit numerous Slovenian students for more than three decades. In 1991, following the example of his predecessor Friedrich-Karl Beier, Joseph Straus started to teach patent law at the Ludwig Maximilian University of Munich and to fuel the interest of his audience - which was regularly composed not only of law students, but also of future chemists, biologists and physicists – in it so strongly that some of them chose it as their profession and began

[2] BEIER/STRAUS, Der Schutz wissenschaftlicher Forschungsergebnisse – Zugleich eine Würdigung des Genfer Vertrages über die internationale Eintragung wissenschaftlicher Entdeckungen, Weinheim etc. 1982.

careers as IP lawyers and patent attorneys. Since 1987, he furthermore developed a strong personal bond with the prestigious Cornell University at Ithaca, New York: after having spent a sabbatical leave at Cornell at the invitation of the agricultural economist William Lesser, he accepted the proposal of law professor John Barceló and Dean Russell Osgood to lecture in the law school's international speakers program and later to teach a course on international IP in the law school curriculum. His course was very popular among regular Cornell J.D. students and the growing number of international students at Cornell. As a Visiting Professor, he continued to offer the course for almost ten years.

Joseph Straus also played an increasingly active role in national and international IP associations as well as in scientific organizations which entrusted him with key functions. He *inter alia* became President of the International Association for the Advancement of Teaching and Research in Intellectual Property (ATRIP), Chairman of the Programme Committee and two Special Committees of the International Association for the Protection of Industrial Property (AIPPI) and Chairman of the Humane Genome Organisation (HUGO).

Notwithstanding all these achievements and the growing international reputation, Joseph Straus also experienced difficult moments in these years: things did not develop that well on the home front. Due to the prolonged uncertainty after the retirement of F. K. Beier, the Max Planck Institute had to endure stormy weather and even its future was at stake. This caused deep concerns about the future of patent law research in Germany and comprehensible personal disappointment to a man who had proven his loyalty to the Institute on numerous occasions.

3. However, with the beginning of this millennium new perspectives arose when the Max Planck Society endorsed a large-size vision for the Institute preserving and strengthening, on the one hand, its key pillars composed of the different branches of industrial property and copyright and expanding, on the other hand, its research into the fields of antitrust, tax, and accounting law. In its new building at one of Munich's most beautiful locations between the Hofgarten and the Marstallplatz, the rebaptized Max-Planck-Institute for Intellectual Property, Competition and Tax Law marched to a new horizon with a board of five directors. Together with his colleagues Gerhard Schricker, Josef Drexl, Reto Hilty and Wolfgang Schön, Joseph Straus, who had meanwhile been appointed Scientific Member of the Max Planck Society and Professor of Law at the University of Munich, set out to restructure the research agenda of the Institute and to conceive innovative projects. Hard-working, patient and efficient also in his function as the Institute's Managing Director from 2002 to 2004, he succeeded to rebuild and strengthen the Institute's vast international network of national and foreign scholars – *inter alia* the MPI's Alumni Association was founded in 2002 – and to attract and motivate a team of bright collaborators, supervising numerous Ph. D. candidates. Patent law research once again became a center of gravity, a highly appropriate development for an institute geographically located so close to major players in the field such as the German and the European Patent Offices.

One of Joseph Straus' greatest deeds is his leading role in establishing and managing the Munich Intellectual Property Law Center (MIPLC). Jointly administered by the Institute and three academic partner institutions, *i.e.* the George Washington University Law School, the Technical University of Munich and the University of Augsburg, the Center is providing postgraduates in the framework of a one year program with the necessary knowledge and skills to deal with intellectual property in a global context at the most sophisticated level. The courses which cover all areas of IP law but also include topics from related fields such as economics and business administration are given in English by the members of the MIPLC faculty, an international network of IP scholars and experienced practitioners. Since the birth of the Center in 2003, Joseph Straus has served as Chairman of its Managing Board. His tireless efforts, his intimate knowledge of foreign, in particular US, university curricula and the selection of highly diligent collaborators as program directors proved to be decisive factors. The Center's international focus and optimal working conditions comprising individual one-to-one tutorial sessions have made it a full success. Five classes have already finished the course which usually culminates in a solemn graduation ceremony in Augsburg's Gold Hall.

Since 2002, Joseph Straus has also served as the Marshall Coyne Visiting Professor of International Law at the George Washington University Law School. Every spring, he has traveled to Washington, D.C. to teach a popular course in Chemical and Biotech Patent Law, or to co-teach that course with Professor Martin Adelman, the Co-Director of the Intellectual Property Law Program at George Washington. In his capacity as the Marshall Coyne Visiting Professor, he has also given a number of well-received lectures on intellectual property law and international trade.

Amazingly, besides all these efforts, Joseph Straus has continued to publish a wealth of articles and studies – his current bibliography contains more than 300 entries –, to edit or co-edit several periodicals such as GRUR, GRUR Int. and IIC as well as collections of monographs and commentaries, to act as consultant to numerous national bodies and international organizations, and to give an exceptional number of lectures around the globe, *inter alia* in his functions as a Visiting Professor of the Graduate Institute of Intellectual Property in Taipeh and as a Distinguished Visiting Professor of Law at the University of Toronto.

His outstanding personality and work is reflected by an impressive quantity of high honors and awards. Joseph Straus received two doctors honoris causa from the University of Ljubljana and the University of Kragujevac, the Grand Cross of Merits of the Federal Republic of Germany, the International Venice Award for Intellectual Property and Medals of Merits from AIPPI and ATRIP. He became Honorary Professor of two Chinese Universities (Tongji University, Shanghai and Huazhong University of Science and Technology, Wuhan) and Honorary Director of their Intellectual Property Institutes. Furthermore, he is Member of Honor of AIPPI as well as Member of several European Academies of Sciences and Art.

3. Leitmotivs in the work of Joseph Straus

1. Most of us are familiar with the fundamental debate on the merits of intellectual property protection in general and of the patent system, in particular. It overshadows many specific issues such as the adequate treatment of innovations in biotechnology or software development. It is at the core of the proper evaluation and worldwide implementation of the TRIPS agreement. And it forms the decisive albeit sometimes implicit basis on which intellectual property scholars and practitioners perform their daily work. Whenever Joseph Straus contributed to this debate – and he did so on countless occasions –, he did not hide his conviction that the patent system may serve as an essential and highly useful market-economy tool in fostering innovation, facilitating technology transfer and disseminating valuable information. Far from the uncritical belief, this view was always rooted in an extensive study of modern investigations and an immense knowledge of economic and political facts. He has shown that the famous position taken 50 years ago by the economist Fritz Machlup – according to whom there was no direct and conclusive evidence on the social value of the patent system and that the safest policy conclusion was to 'muddle through', either with a patent system, if it already existed, or without it, if it did not yet exist – is nowadays hardly tenable and that, although there may not be mathematical certainty, the reached degree of plausibility of overall social benefits is extremely high. Being well aware of the problems caused by the recent dramatic increase of patent applications worldwide, he has refused to accept its negative label 'global warming of patents' with plain words:[3]

> It is not greenhouse gases that are at stake, rather it is the fuel that powers the engine moving the global economy. As with all fuels, it will surely contain some debris, which has to be filtered out in order to optimize the combustion performance of the engine. The latter is definitely in need of fine lubricants.

As the final caveat demonstrates, Joseph Straus has never neglected the need for a careful balancing of the patent system, which should take the interest of society at large into account and must tailor the scope of protection in a manner commensurate with the inventor's genuine contribution in order to avoid stifling overprotection.

2. In the last thirty years, the landscape of the international patent system has radically changed. At the beginning of this period, worldwide patent law harmonization appeared to be intrinsically linked to the venerable Paris Convention and the conception of patent law as it had evolved in Western industrialized countries was under heavy pressure. Its beneficial role for economic development had been questioned by an influential UNCTAD study and demands for restrictive measures such as compulsory licensing and domestic working of patents were on the international agenda. In addition, socialist countries firmly advocated the grant of inven-

[3] STRAUS, Is There a Global Warming of Patents?, 11 JWIP 58, at 60 (2008).

tor's protection certificates[4] as an alternative 'non-capitalist' way of promoting innovation.

Yet the international standstill was rapidly overcome 15 years ago when the GATT negotiations of the Uruguay round led to the establishment of the WTO and to the conclusion of the TRIPS agreement setting high standards of protection in all fields of intellectual property. This international treaty is a cornerstone of today's globalized research, development, production, and trade[5] and its far-reaching implications for patent law occupied Joseph Straus' attention for more than a decade.[6] As usual, his approach has been positive and realistic.

On the one hand, he has demonstrated that the TRIPS 'marriage of convenience' – *i.e.* the exchange of higher patent standards for developing countries' access to technology – is successful and, due to inbuilt flexibilities, offers opportunities for all players in the global economy. Availability of effective patent protection in a given country should therefore not be viewed as the scapegoat for increased social costs, but as a comparative patenting advantage especially evident in countries where further key factors such as skilled human resources or lower operating costs are present.

On the other hand, his thorough analysis has also revealed a number of shortcomings and weaknesses, making him a passionate advocate of TRIPS-plus harmonization, if possible within the framework of the Substantive Patent Law Treaty (SPLT) negotiations. He finds it difficult, if not impossible, to justify in the age of globalization that a patent application for the same invention can lead to different results in different countries. Since harmonization of substantive patent law would be a precondition for enhanced cooperation between examining patent offices, it is his belief that, by reason of the ever-growing global expansion of industrial research and development, the system designed to protect inventions must also become increasingly global.[7]

3. The regional patent law harmonization and unification process in Europe has been a further research priority of Joseph Straus. His profound inside knowledge, acquired at a time when the European patent system was still in its infancy, has enabled him not only to assume the Herculean task of editing and contributing to a monumental commentary on the EPC, the Münchner Gemeinschaftskommentar,

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[4] It was Joseph Straus who, to the surprise of many, discovered striking similarities between this model and the principles of employees' inventions law of Western countries.

[5] *See* STRAUS, Bargaining Around the TRIPS Agreement: The Case for Ongoing Public-Private Initiatives to Facilitate Worldwide Intellectual Property Transactions, 9 Duke Journal of Comparative & International Law 91-107 (1998).

[6] *See e.g.* the fundamental article STRAUS, Bedeutung des TRIPS für das Patentrecht, 1996 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 179-205 = Implications of the TRIPS Agreement in the Field of Patent Law in: BEIER/SCHRICKER (eds.), From GATT to TRIPS – The Agreement on Trade-Related Aspects of Intellectual Property Rights, Weinheim etc. 1996, p. 160-215.

[7] *See* STRAUS/KLUNKER, Harmonisierung des internationalen Patentrechts, 2007 GRUR Int. 91-104 = Harmonisation of International Patent Law, 38 IIC 907-936 (2007).

but also to give invaluable advice to the European Patent Office on numerous occasions, *e.g.* as a member of its Standing Advisory Committee and of the Research Advisory Board of the European Patent Organisation's Research Fund.

Albeit clearly recognizing the achievements brought about by the current system compared to the pre-regional multitude of purely national patent procedures, Joseph Straus has continuously encouraged European decision-makers to take further steps forward. In a highly influential study prepared in connection with the EC Commission's 1996 Green Paper on Innovation, he critically analyzed the state of the patent system in the European Union, identified a number of important deficiencies compared to the legal situation in the United States and Japan, and came up with far-reaching and partly provocative suggestions.[8] In order to overcome the potential fragmentation of the EU internal market, he called for a truly operational Community patent and for the transfer of the EPC system to the Community legal order, making the EPO an EU institution. He also considered an increase in flexibility of the legislative framework necessary for adjusting European patent law to the dynamics of technological and scientific development. Further proposals were aimed at reducing the costly translation requirements, establishing an integrated European court system which should include the boards of appeal of the EPO and have a common appeal court, and offering small and medium sized enterprises a reduction of patent fees similar to that provided under US patent law. While not all these suggestions have yet become reality, they certainly strengthened the will of the decision-makers in reaching out for substantial improvement, leading to intergovernmental conferences in 1999 and 2000, to the successful conclusion and ratification of the London Translation Agreement, to the elaboration of a draft European Patent Litigation Agreement (EPLA) and last but not least to the EPC revision 2000 which recently entered into force.

4. A great many of Joseph Straus' publications focus on the patent law challenges created by modern biotechnology. Two important studies mark the beginning of the international debate in this area. One of them is a report[9] to the OECD, the first international organization to take up the subject. The second one equally became an IP bestseller translated into several languages.[10] It was written by Joseph Straus in 1985 in only one month – a most remarkable feat – born of a 'working vacation',

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[8] STRAUS, The Present State of the Patent System in the European Union – As Compared with the Situation in the United States of America and Japan, Luxembourg 1997.

[9] BEIER/CRESPI/STRAUS, Biotechnology and Patent Protection – An International Review, OECD, Paris 1985 = Biotechnologie et protection par brevet: Une analyse internationale, OCDE, Paris 1985 = Biotechnologie und Patentschutz – Eine internationale Untersuchung der OECD, Weinheim etc 1986 = Baiotekunorojí to tokkyo hogo – Kokusaiteki rebyū Hatsumei Kyōkai, Tokyo 1987.

[10] STRAUS, Industrial Property Protection of Biotechnological Inventions – Analysis of Certain Basic Issues, WIPO, Geneva 1985 = La protection par le moyen de la propriété industrielle des inventions biotechnologiques – Analyse de certaines questions fondamentales, OMPI, 1985 = La protección de las invenciones biotecnológicas por la propiedad industrial – Análisis de ciertas cuestiones básicas, OMPI 1986 = Gewerblicher Rechtsschutz für biotechnologische Erfindungen – Analyse einiger Grundsatzfragen, Cologne etc. 1987.

which he spent in the headquarters of WIPO in Geneva following an invitation of his unforgotten friend Ludwig Bäumer, and initiated the extensive discussion of so-called Suggested Solutions in several WIPO conferences. Since that time, the interface of patent law and biotechnology has remained a hot spot of intellectual property law, continuously generating a multitude of complex issues, involving further branches of law and other disciplines including natural sciences and ethics. Joseph Straus has dealt with almost all of them.

In 1998 the EU adopted the Directive on the Legal Protection of Biotechnological Inventions, its first and hitherto sole patent law directive, which considerably harmonized the national laws plus the EPC in this area and developed them further. The legislative history was long and cumbersome, and the text shows obvious signs of a political compromise. Even after its enactment the Directive remained highly controversial, resulting in a challenge before the European Court of Justice and a protracted implementation process. Joseph Straus has contributed to this important piece of European IP legislation from the very beginning, when, as a consultant to the EC Commission, he worked out the explanatory memorandum of the first draft Directive. Later, he explained and defended the Directive's principles and provisions within the EU Council and before the EU Parliament. Finally, in the course of the implementation process, he provided several national governments and legislators with invaluable advice.

European patent law contains specific exclusions for certain 'macrobiological' inventions, *i.e.* plant and animal varieties as well as essentially biological processes for the production of plants or animals. Joseph Straus has indefatigably criticized these provisions, which were drafted at a time when the achievements of modern biotechnology were not yet visible on the horizon, as major stumbling blocks for the adequate protection of innovations in plant and animal genetic engineering. While the European legislator did not abolish them completely, their negative impact has been nowadays considerably reduced by limiting interpretative provisions. In its *Novartis* decision[11] the Enlarged Board of Appeal of the EPO followed suit, after a referral by the competent Technical Board of Appeal which appears to have been persuaded to question its own prior case law in particular by the arguments developed by Joseph Straus in his function as legal expert of the patent applicant.[12]

The issues surrounding the patenting of plants are further complicated by the existence of the plant breeders' rights system established under the international umbrella of the Union pour la Protection des Obtentions Végétales (UPOV). Joseph Straus is among the few specialists who are intimately familiar with the intricate interface between the two protection schemes[13]. He most actively participated in the

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[11] G 1/98, 2000 OJ EPO 111 – *Transgenic Plant/NOVARTIS II*.

[12] *See* STRAUS, Völkerrechtliche Verträge und Gemeinschaftsrecht als Auslegungsfaktoren des Europäischen Patentübereinkommens – Dargestellt am Patentierungsausschluss von Pflanzensorten in Art. 53 (b), 1998 GRUR Int. 1-15.

[13] *See e.g.* STRAUS, The Principle of 'Dependence' under Patents and Plant Breeders' Rights, 1987 Ind. Prop. 433-443 = Le principe de la 'dépendance' dans le droit des brevets et le droit de l'obtenteur, 1987 Prop. Ind. 473-484.

UPOV revision conference in 1991[14] which, *inter alia*, led to the abolition of the double protection prohibition and to an overall strengthening of the *sui generis* system, particularly by the introduction of the concept of essentially derived varieties, which made cosmetic breeding dependent from the original innovation. In order to promote a fruitful coexistence of both systems, he also extensively dealt with the legislative policy key question as to whether and to what extent exemptions and limits foreseen under the plant breeders' rights system should have an impact on the right holder's prerogatives under patent law.[15] In fact, European law currently shows a clear tendency towards convergence of the systems at the level of prerogatives, due to specific cross-linking provisions on dependency licensing in favor of competing innovators and the transfer of important right limitations such as the farmer's privilege from the plant breeders' right system to the patent system. The future will show whether a further fine-tuning of the interface is needed.

In the area of microbiological inventions, patent law has developed the rather original solution to accept the deposit of biological material in recognized depositary institutions as a supplement to the written disclosure in the patent specification. This has raised the controversial issue of when and under which conditions the public should be able to gain access to the deposited material which may amount to a mini-factory of its own and constitute valuable and reproducible tangible property. The current deposit rules in Europe embrace a balanced solution which was heavily influenced by the proposals made by Joseph Straus in a major study completed in 1989.[16]

Ethical issues of modern biotechnology have frequently invaded the patent territory. Emotional public debates were stirred in particular as soon as protection was sought for embryonic stem cells, genetically engineered animals prone to develop cancer or other controversial inventions. Joseph Straus has made significant contributions to these debates by analyzing the issues at stake in a serious and objective manner.[17] When the EPO received heavy criticism for the granting of the controversial Edinburgh patent and was even bricked up by Greenpeace activists, he immediately responded by drawing a fair picture of the problems in a major German newspaper. The article was reprinted in a special edition of the EPO's internal

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[14] v. PECHMANN/STRAUS, Die Diplomatische Konferenz zur Revision des Internationalen Übereinkommens zum Schutz von Pflanzenzüchtungen, 1991 GRUR Int. 507-511.

[15] *See e.g.* STRAUS, Measures Necessary for the Balanced Co-Existence of Patents and Plant Breeders' Rights – A Predominantly European View, Doc. WIPO-UPOV/Sym/02/7.

[16] STRAUS/MOUFANG, Hinterlegung und Freigabe von biologischem Material für Patentierungszwecke – Patent- und eigentumsrechtliche Aspekte, Baden-Baden 1989 = Deposit and Release of Biological Material for the Purposes of Patent Procedure – Industrial and Tangible Property Issues, Baden-Baden 1990.

[17] *See e.g.* STRAUS, Zur Patentierbarkeit von embryonalen Stammzellen nach europäischem Recht, in: HONNEFELDER/STREFFER (eds.), Jahrbuch für Wissenschaft und Ethik, Vol. 9 (2004), p. 111-129.

magazine and thus helped to give back some orientation to the rather confused EPO staff.[18]

A further hot topic has been the patenting of genes. Although there is currently a large consensus in international patent practice that the making available of a DNA sequence is more than a mere discovery and that human and other genes can in principle be the subject-matter of industrial property rights, a lot of difficulties arise when applying the patentability requirements and tailoring the appropriate scope of protection. Here, Joseph Straus has repeatedly admonished not to overstretch the system. The Intellectual Property Rights Committee of the Human Genome Organisation (HUGO), which he chaired for more than a decade, has opposed the patenting of short sequences from randomly isolated portions of genes encoding proteins of uncertain functions and has urged all large-scale sequencing centers to immediately release all human genome sequence information in order to guarantee their rapid publication and free availability. In his endeavor to find a balanced solution for the patenting of genes, he even dared to question the principle of absolute product protection, which may be viewed as one of the holy cows of patent law. He furthermore chaired an OECD expert group which in 2006 successfully developed detailed principles and best practices for the licensing of genetic inventions in order to ensure that therapeutics, diagnostics and other products and services employing genetic inventions are made readily available on a reasonable basis.

5. The preceding example already indicates a further leitmotiv in Joseph Straus' work: the patent system should accommodate the needs of scientists in academia and non-university research institutions – whom he rightly views as a precious and increasingly economically important potential for innovation – in the best possible way. An early study[19] devoted entirely to this subject already contains several important proposals, one of them being the plea for more flexibility in the requirement that the disclosure of an invention has to enable the skilled person to carry it out at the filing date of the patent application. On other occasions, he analyzed the metes and bounds of the experimental use exemption, *inter alia* advocating that it should be broadly applied in order not to block the making of improvement inventions,[20] but opposing its simple extension to commercial activities related to patented research tools.

However, the most striking illustration of his concern for a protection system which is fair to scientists is his life-long battle for the reintroduction of a novelty grace period into the European patent system. The novelty requirement is strict and absolute; an inventor who makes the invention public before filing a patent applica-

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[18] STRAUS, Gerät das Patentrecht außer Kontrolle? Missverständnisse bei der Empörung über eine Entscheidung des Europäischen Patentamts, Frankfurter Allgemeine Zeitung of 6 March 2000, No. 55, pp. 10-11 = Patent Law Getting Out of Hand? Misconceptions in the Outcry Against a Decision of the European Patent Office, Special edition of the Gazette of the EPO, May 2000, pp. 8-11.

[19] BEIER/STRAUS, *supra* note 2.

[20] STRAUS, Zur Zulässigkeit klinischer Untersuchungen am Gegenstand abhängiger Verbesserungserfindungen, Festschrift für Karl Bruchhausen zum 65. Geburtstag, 1993 GRUR 306-317.

tion loses the right to a patent. In contrast to US patent law and to the legal situation as it is existed in Germany before European patent law harmonization, there is no general grace period protecting the inventor for a limited period of time against own pre-publications. Although inventors in industry may be able to cope to some extent with such a legal environment, inventors in universities and publicly funded research organizations are often caught in a trap. Joseph Straus has analyzed the pros and cons of the grace period most thoroughly,[21] undertaking and organizing fact-finding missions in many European research centers.[22] When returning from an AIPPI Congress in the early 1980s, Joseph Straus had great hopes that the grace period would soon return on an international level. Unfortunately, these hopes have not yet materialized. The international grace period became the nucleus and booster of the draft SPLT, but it is still being used as a bargaining chip in these multinational negotiations. Nevertheless, it is not yet too late for European law-makers to realize the harmfulness of postponing necessary improvements of domestic patent systems.

4. Last but not least …

Some of us have had the chance to work closely together with Joseph Straus, at times even in the framework of a common research project. Although we have learned much from him as a scholar, we have probably learned more from him as a person. We could in particular discover that it is no contradiction to have a discerning independent mind and to be an excellent team player, to work extremely hard and to spend many hours in relaxed discussions with colleagues and friends, to have an enormous patience and to be goal-oriented at the same time, and to have a deep passion for a fascinating branch of law and to be genuinely interested in its 'human environment'.

We are grateful for all this and wish Professor Joseph Straus a Happy Birthday, many more years of actively stimulating the international patent scene and perhaps a little bit more time for his wonderful family – his wife Hildegard, his son Alexander, his daughter Isabella and his grandchildren.

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[21] See in particular STRAUS, Grace Period and the European and International Patent Law – Analysis of Key Legal and Socio-Economic Aspects, Munich 2001.

[22] STRAUS, The Significance of the Novelty Grace Period for Non-Industrial Research in the Countries of the European Economic Community, Luxembourg 1988.

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Prior Art from the Internet – A Potential Further Reason for Branching off a Utility Model from a Pending Patent Application

Alexander Klicznik

1. Introductory Remark

One of the many topics Joseph Straus has been ardently devoted to for many years is the quest for an introduction of a grace period[1] into the European Patent Convention (EPC) and for a reintroduction into the German Patent Act. In this context, he also drew attention to the fact that a grace period was maintained in the German Utility Model Act, whereas it had been abandoned from the German Patent Act – in spite of very positive experiences over many years – when the German Patent Act was brought in line with the Strasbourg Convention[2] and the EPC.[3] Joseph Straus thus highlighted a major difference between the definition of the state of the art according to the European Patent Law and the German Utility Model Law. This contribution focuses on and outlines the further discrepancies in this regard and concludes that the existing differences are amplified in respect of disclosures on the Internet, such as a webpage or an electronic database accessible via Internet. Although there is still no explicit jurisprudence in this regard, there are good reasons that such Internet disclosures will not be considered as relevant prior art in

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[1] When delivering a recent speech before WIPO, *Joseph Straus* defined the notion 'General Grace Period' as 'a specific period of time preceding the filing of a patent application, during which disclosures by any means (in writing, orally, by use, on exhibitions, *etc*.) of the invention for which the patent application is filed by the inventor or his/her successor in title do not constitute prior art in respect of the patent application at hand', *cf.* STRAUS, Grace Period – First Real Chance after Seventy Years, slide presentation given during the WIPO Open Forum on the Draft SPLT, Geneva, March 3, 2006, available at <http://www.wipo.int/export/sites/www/meetings/en/2006/scp_of_ge_06/presentations/scp_of_ge_06_straus.ppt.> (as of April 2008)

[2] Convention on the Unification of Certain Points of Substantive Law on Patents for Invention, also called Strasbourg Convention, entered into force on August 1, 1980 and aims at harmonizing the national patent laws of the European signatory states.

[3] *Cf.* STRAUS, Grace Period and the European and International Patent Law, pages 48, 49, and 15 *et seq*.: The six months grace period in the German Utility Model Act was even calculated from the priority date as the relevant date. Insofar, the provision stipulating the grace period had even been improved. With respect to the national patent acts, Germany and the United Kingdom – two countries with a well-established patent tradition and with patent offices that performed a substantive examination of the patent application – had a period of grace included in their patent acts before it had to be abandoned in the process of the European harmonization of the patent acts; *cf.* BUSSE/KEUKENSCHRIJVER, Section 3 PatG, Rn. 203; *cf.* KLUNKER/PRINZ ZU WALDECK, Diskussionsforum über den Entwurf des 'Abkommens zur Harmonisierung materieller Fragen zum Patentrecht' (Substantive Patent Law Treaty – Splt) vom 1.-3. März 2006 in Genf, 2006 GRUR Int. 577, 582.

the context of the utility model law at all and will therefore further widen the 'gap' which is responsible for the fact that the utility model is such a popular tool and a dangerous weapon in the hands of an attacker.

2. Utility Models – A Significant Gap with Respect to the Relevant State of the Art

2.1 Utility Models

Protection of 'small' inventions – where the term for protection is shorter than the term for a patent and no substantive examination is required – can be obtained in a large number of countries today such as in the majority of the European countries and in Latin America but also in Japan, China and Australia.[4] Apart from Australia, the countries with a common law tradition refrained from offering utility model protection, though.[5] The various laws establishing a utility model exhibit profound differences and these differences sometimes manifest themselves with respect to the relevant state of the art.[6] The majority of the European countries make use of a definition of the state of the art that does not differ from the definition as used in the EPC.[7] Considerable differences with respect to the definition of the state of the art according to the utility model law exist in Germany, Hungary and Spain.[8] The following remarks refer to the German Utility Model law.

2.2 Narrower Definition of the State of the Art in the German Utility Model Act as compared to Patent Law

2.2.1 Relevant State of the Art According to European Patent Law

2.2.1.1 Means of Disclosure

The relevant state of the art according to European patent law is defined in Article 54 (2) EPC:

> The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing the European patent application.

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4 *Cf.* the most recent overview in SEGADE, Utility Models – Lost in Translation, 2008 IIC 135, 136.

5 *Id.*

6 As with respect to a patent, the subject of the utility model must be new and inventive in view of the state of the art.

7 *Cf.* GOEBEL, Schutzwürdigkeit kleiner Erfindungen in Europa – die materiellen Schutzvoraussetzungen für Gebrauchsmuster in den nationalen Gesetzen und dem EU-Richtlinienvorschlag, 2001 GRUR 916: Similar definition of the state of the art as used in the EPC and Strasbourg Convention in Bulgaria, Finland, Greece, Ireland, Italy, Yugoslavia, Croatia, Poland, Portugal, Slovakia, Slovenia and the Czech Republic. No protection similar to a utility model available in the United Kingdom, Iceland, Latvia, Lithuania, Luxemburg, Norway, Romania, Switzerland and Sweden.

8 The German and Hungarian Utility Model Acts have the same definition of the state of the art. In Spain, with respect to a utility model only disclosures in Spain are relevant, *cf.* GOEBEL, *Id.*

It follows that all disclosures of the invention without any restriction with respect to time, place or manner are considered.[9] Every verifiable fact that can convey information can be a means of disclosure of the prior art.[10] Every medium can be a carrier of a relevant disclosure of the prior art.[11] The disclosure can be in any language, provided that it can be read by a skilled person.[12] The disclosure can also be contained in a software code.[13] In addition, the information can be carried on an information carrier or it can be without an information carrier.[14]

2.2.1.2 Fictitious State of the Art

The fictitious state of the art is regulated in Article 54(3) EPC:

> Additionally, the content of European patent applications as filed, the dates of filing of which are prior to the date referred to in paragraph 2 and which were published on or after that date, shall be considered as comprised in the state of the art.

2.2.1.3 Non-Prejudicial Disclosures in case of Evident Abuse

Non-prejudicial disclosures are regulated in Article 55 (1) EPC:

> For the application of Article 54, a disclosure of the invention shall not be taken into consideration if it occurred no earlier than six months preceding the filing of the European patent application and if it was due to, or in consequence of:
> (a) an evident abuse in relation to the applicant or his legal predecessor, or […]

The scope of this provision is very narrow and has been even further restricted by the jurisprudence of the Enlarged Board of Appeal of the EPO and the Federal Supreme Court.[15]

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[9] So-called concept of absolute novelty, *cf.* KRASSER, Patentrecht, 5th ed., 2004, Section 17 I. 1, 280.

[10] BOSSUNG, Das der 'Öffentlichkeit zugänglich Gemachte' als Stand der Technik – Neues Patentrecht auf ungeklärter Grundlage?, 1990 GRUR Int. 690, 695.

[11] ROGGE, Gedanken zum Neuheitsbegriff nach geltendem Patentrecht, 1996 GRUR 931, 932; KRASSER, *supra* note 10, § 16 IV. 1., at 256

[12] ROGGE, *id.*; *Benkard*, Patentgesetz, Section 3, Rn. 37, 59, 63; EPO, Guidelines for the Examination, C IV. 5.

[13] ROGGE, *id.*; EPO, T 164/92, Ground No. 7 of the Decision, OJ EPO 1995, 305 = 1995 GRUR Int. 704 – *Elektronische Rechenbausteine*, *Programmlisten/BOSCH*; einschränkend EPO T 461/88, 6.3 of the reasons for the decision, OJ EPO 1993, 295 = GRUR Int. 1993, 689 – *Maschine mit Mikrochip/HEIDELBERGER DRUCK* (here, it would have been technically feasible to code the programme of a microchip, however, under the circumstances given – in particular in view of costs versus benefit considerations, people would have refrained from examining the microchip further).

[14] *Cf.* HELD/LOTH, Methoden und Regeln zur Beurteilung der Neuheit im Patentrecht (Q 126). Bericht für die deutsche Landesgruppe, 1995 GRUR Int. 220, 221.

[15] EPO, Enlarged Board of Appeal in G 2/99, 2001 IIC 673 = 2001 Grur Int. = 2001 Official Journal EPO 83 – *Six-Month Grace Period/DERWERT*; Federal Supreme Court, 1996 GRUR 349 – *Corioliskraft II*; for the practical scope of application of the provision see KLICZNIK, Neuartige Offenbarungsmittel des Standes der Technik im Patentrecht, 2007, 186.

2.2.2 Relevant State of the Art According to the German Utility Model Law

The state of the art is defined in Section 3(1) German Utility Act:[16]

> The subject matter of a utility model shall be considered to be new if it does not form part of the state of the art. The state of the art comprises any knowledge made available to the public by means of a written description or by use within the territory to which this Law applies before the date relevant for the priority of the application. Description or use within the six months preceding the date relevant for the priority of the application shall not be taken into consideration if it is based on the conception of the applicant or his predecessor in title.

2.2.2.1 Means of Disclosure

The relevant state of the art with respect to the Utility Model Act is therefore narrower in regard of the means of disclosure. According to the German Utility Model Act, only written descriptions (anywhere in the world) and public prior uses in Germany are considered. Any prior use abroad, oral descriptions, or making available in any other way do not fall under the scope of the definition.

2.2.2.2 No Fictitious State of the Art

The prior art with respect to the Utility Model Act is further restricted in regard of the fictitious state of the art. Whereas applications which were filed before the relevant date, but published only after the relevant date, are considered with respect to assessing the novelty of the invention according to the EPC, the Utility Model Act does not have such a provision. Only in cases, where a prior patent or a prior utility model is directed at the identical subject matter, the cancellation of the utility model can be accomplished according to sections 13 (1), 15 (1) Nr. 2 Utility Model Act. Cancellation of the utility model will be accomplished if the **claims** are essentially the same (prior claims approach). Apart from that, the contents of the application are ignored. With respect to the fictitious prior art according to the European Patent Convention and the German Patent Act, the whole contents of the prior application are considered to be relevant (whole contents approach).

2.2.2.3 Grace Period

According to Section 3 (1), 3rd sentence, of the German Utility Model Act, the grace period – not limited to cases of evident abuse – precedes the Paris Convention priority date. In comparison to Article 55 EPC, the scope of application of this provision is therefore much wider.

2.3 Utility Model as an Effective Instrument

The differences with regard to the state of the art mentioned above are one reason why the utility model is popular. In this context, it is important to note that pursuing patent protection does not hinder the patent applicant from pursuing protection by a

[16] An English translation of the German Utility Model Act is available at <http://www.wipo.int/clea/docs_new/pdf/en/de/de015en.pdf.> (as of April 2008).

utility model for the same invention at the same time. In addition, the decision to apply for registration of a utility model can be (and often is) made at a very late stage since a patent applicant has the option to derive a utility model from its pending patent application (so-called branching-off of a utility model).[17]

In view of the differences with respect to the prior art, the branching-off of a utility model can be particularly tempting, if a pending patent application receives a negative examination report based on prior art which would not be relevant under the Utility Model Act. The patent applicant can then pursue the claims in an unamended form as a request for registration of a utility model.

Even if the examiner does not rely on pieces of prior art that are not relevant under the Utility Model Act, the branching-off of a utility model is nevertheless an option that is followed by many applicants. It provides for the following advantages:

- In doing so, the applicant can bridge the considerable time gap between applying for the patent and the decision of the patent office that a patent is granted or not. The utility model is registered if the application for the utility model is in accordance with some formal requirements. There is no substantive examination. Therefore, a utility model can be obtained within a short period of time. If the formal requirements are met, the utility model will be registered within a period of six to eight weeks after the application.[18]
- When branching off a utility model, the applicant usually has already a more or less exact idea of the characteristics of the embodiment that he would like to attack. The applicant for the utility model – who is entitled to fully exploit the whole contents of the pending patent application – will therefore be able to tailor claims of the utility model so that they reflect the attacked embodiment as closely as possible.[19] Furthermore, the applicant can pay tribute to the jurisprudence of the infringement courts on claim interpretation. If the utility model is derived from a European patent application and the language of the application is not German, a translation of the description into German must be filed. Also in this respect, it is helpful if the translation is made in view of the attacked embodiment.
- Indeed, a published patent application already provides for a claim for a reasonable compensation.[20] However, going beyond this, the registered utility model

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[17] Branching off a utility model under the requirements of Section 5 (1) German Utility Model Act: 'Where an applicant has already sought, at an earlier date, a patent with effect in the Federal Republic of Germany for the same invention, he may file together with the utility model application a declaration claiming the date of filing relevant for the patent application. Any priority right claimed in respect of the patent application shall also apply to the utility model application. The priority right under the first sentence may be exercised up to the expiration of two months from the end of the month in which processing of the patent application or any opposition procedure is terminated, at the latest, however, by the end of the tenth year from the date of filing the patent application.'

[18] BENKARD/GOEBEL, Patentgesetz, 10th ed. 2006, Vorbem. Gebrauchsmustergesetz, number 3, at the end.

[19] *Cf.* Federal Supreme Court, 2003 GRUR 867 – *Momentanpol*.

[20] In case of a European patent application which is not drafted in German, the applicant will only be entitled to receive a reasonable compensation after a German translation of the claims has been published or has been served on the alleged infringer, *cf.* II § 1 a (2) IntPatÜG.

provides for unrestricted protection: The owner of the utility model has a full claim for damages and can also seek an injunction.[21] The utility model can be the basis for a preliminary injunction, too.

3. New Information and Communication Technologies

In light of the new information and communication technologies, the differences with respect to the definition of the state of the art under patent law and under utility model law might become even more important. Over the last twenty years, tremendous progress with respect to information and communication technologies has been accomplished. In particular, the World Wide Web as the most prominent Internet service has quickly grown into a huge and heterogeneous information source. Electronic databases are widely used today and can in the majority of cases also be accessed via the Internet, in particular from a World Wide Web browser. A different Internet service – Usenet news – has already become out of fashion.[22] However, in the beginning and mid-nineties, it was a frequently used instrument of those being involved in research and development and therefore also a place where new ideas and new technical solutions were published for the first time. In addition, email has become part of the daily lives of everybody.

All of these new information sources mentioned are certainly suited to disclose technical information for the first time. They also bring about new – and sometimes unique – problems: In general, the exact time of publication is difficult to be determined.[23] In addition, it is hard to determine what exactly the content of this publication was and whether the content was modified later.[24] Further uncertainty exists with respect to the question what the requirements for the public availability of a web page are.[25] In his study regarding the grace period, Joseph Straus has already

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[21] The compensation claim can only be aimed at the entity that actually makes use of the teaching. The claim for full damages can also be directed at a legal representative of this entity such as a president, Geschäftsführer and so on.

[22] Usenet news is a distributed Internet discussion system. Users read and post public messages (called articles or posts, and collectively termed news) to one or more categories, known as newsgroups. Usenet resembles bulletin board systems (BBS) in most respects, and is the precursor to the various web forums which are widely used today as part of the World Wide Web.

[23] The probative value of the Internet Archive under <www.archive.org> has not been given much credit in recent case law, *cf.* Federal Patent Court, 2003 GRUR 323 – *Computernetzwerk-Information*, EPO, T 1134/06, reason of the decision No. 3.2. In favor of awarding more probative value to the Internet Archive KLICZNIK, *supra* note 15, at 271, 272, 276, 277, 283. For further means of evidence, *cf.* KLICZNIK, *id.*, at 267 *et seq*.

[24] VERHULST/RIOLO, Prior Art Disclosure on the Internet: A European Perspective, Part 2: The Internet as Prior Art, Patent World (February 2000), 16, 17; Straus, *supra* note 2, at 73, item 18.2; critical with respect to the probative value of prior art from the Internet, Federal Patent Court, 2003 GRUR 323 – *Computernetzwerk-information;* Federal Patent Court, 17 W (pat) 47/00, not published; MELULLIS in: BENKARD, Patentgesetz, § 3 PatG, Rn. 62c; EPO T 1134/06.

[25] Is it required that the page is indexed by a search engine? Is it sufficient if the page is hyperlinked to another publicly available page? Or would it even be sufficient if somebody – who enters the URL of the webpage – gets to the page? *Cf.* for these questions KLICZNIK, *supra* note 15, at149 *et seq.*

dealt with the challenges that these disclosures pose in patent granting, opposition and nullity proceedings. With respect to the patent system, he set forth that – in particular in the light of a standard of proof on the 'balance of probabilities' – 'any pre-filing disclosure of the applicant or his predecessor in title, but also any post-filing disclosure in relation to later filings of improvement inventions, will become a pure lottery'.[26] This was considered an argument in favor of the introduction of a grace period into the European Patent Law.

The next chapter will focus on the question if Internet disclosures – in particular WWW pages – can be classified as written descriptions and will therefore have to be taken into account in the prior art according to the utility model law.

4. Internet Disclosures as Written Descriptions?

In view of the remarks made in Chapter 2 above, there can be only little doubt that electronic disclosures – such as electronic databases accessible via WWW, web pages, Usenet news postings, and emails – in principle fall under the definition of the state of the art according to the patent law. Whether an Internet disclosure can be classified as a written description or as a making available in any other way does not have any implication with respect to patent law.

The situation is different with respect to utility models. Since according Section 3(1), 2nd sentence, Utility Model Act, only written descriptions and a prior use in Germany are comprised in the state of the art but not in making it available in any other way, the question whether Internet disclosures can be classified as written descriptions becomes a decisive question.

4.1 Grammatical and Systematic Interpretation of the Term 'Written Description'

Both definitions of the state of art – according to the German Patent Act and according to the Utility Model Act – make use of the term 'written description'. In the former Utility Model Act 1968, the term 'public printed publication' was used instead of 'written description'. The old wording (Section 1(2) Utility Model Act 1968) read as follows:

> They are only considered as new to the extent as – at the time of application – they are not already described in a public printed publication and are not publicly used within this country.

The terminology 'public printed publication' is consistent with the terminology used in the old Section 2, 1st sentence, of the German Patent Act 1968 where it read:

> An invention is not considered as being new, if – at the time of application – it is described in public printed publications of the last hundred years or is publicly used in such a manner that – in the aftermath – the use by others skilled in the art seems possible.

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[26] *Cf.* STRAUS, *supra* note 2, at 74, item 19.

After the EPC and the Strasbourg Convention came into force, the definition of the prior art according to the German Patent Act was brought in line with the definition of the prior art according to the Strasbourg Convention. The term 'public printed publication' was changed into 'written description' and the further definition was amended so that the definition of the prior art corresponded to the definition given in Article 54 (2) EPC.

The German lawmaker then decided that the terminology used in the German Utility Model Act should be harmonized with the terminology as used in the definition of the prior art given in the revised German Patent Act. However, in view of the shorter term of the utility model in comparison to the patent (maximum term of 10 years instead of 20 years), the lawmaker felt that it was justified that the definition of the prior art was narrower, *i.e.* not comprising any oral descriptions, no public prior use abroad and no making available in any other way.[27] Therefore, the lawmaker had the definition of the prior art according to the Patent Act on its mind when drafting the provision. This speaks in favor of the interpretation that the term 'written description' is meant to mean the same in the context of the Patent Act and in the context of the Utility Model Act.

It further shows that it was a purposeful decision of the lawmaker to exclude oral descriptions and public use abroad from the prior art. The same is true for the making available in any other form. In the EPC and – in consequence – also in the German Patent Act the term 'making available in any other form' was introduced into the provision in order to pay tribute to technological progress bringing about new ways to disclose a technical teaching.[28] The fact that these disclosures in any other form were excluded speaks against taking into account Internet disclosures in the state of the art according to the Utility Model Act.

Nevertheless, a different intention of the regulation could allow for different interpretations of the term 'written description' in patent law and in utility model law. However, the motivation of the lawmaker drafting Section 3 Utility Model Act does not suggest such a different interpretation of the terms.

The differences in the definition of the prior art can be understood in view of the fact that the utility model was intended to provide for simple, fast and cheap protection for technical inventions.[29] This was accomplished by not providing for a substantive examination of the utility model. It was assumed that this lack of substantive examination would, however, add to legal uncertainty. As a counter measure, inventions for methods – validity and scope of protection of method inventions were considered as difficult to be assessed – were excluded from the subject matter where a utility model could be obtained.[30]

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[27] *Cf.* BT-Ds. 10/3902, page 20; GOEBEL in: BENKARD, Patentgesetz, § 3 GebrMG, Rn. 7.

[28] *Cf.* VAN EMPEL, The Granting of European Patents, 1975, 37; LOTH, Neuheitsbegriff und. Neuheitsschonfrist im Patentrecht, 1988, 185; *Mes*, Patentgesetz, § 3 PatG, Rn. 20; Guidelines for the examination at the EPO, D V 3.1.1.

[29] BENKARD/BRUCHHAUSEN Vorbem. GebrMG, Rn. 4; MÜLLER, Novellierter Gebrauchsmusterschutz – Bemerkungen zum Bericht über die Tätigkeit des Unterausschusses für Gebrauchsmusterrecht, 1979 GRUR 29; 1979 GRUR 453.

[30] *Cf.* PIETZCKER, Bericht über die Tätigkeit des Unterausschusses für Gebrauchsmusterrecht, *1979* GRUR 29.

The different definition of the prior art according to the utility model law was meant to provide a simple, fast and cheap protection with as much of legal certainty as possible: Oral descriptions and prior use abroad tend to bring about evidentiary problems.[31] Therefore, they are not taken into consideration.

Webpages retrieved from the Internet, databases accessed via Internet, Usenet News postings tend to display very similar evidentiary problems. In establishing their publication date, the Internet Archive can be of help. However, the probative value of Internet Archive is highly disputed.[32] Other means of evidence are witness statements of people having viewed or having downloaded the webpage at a certain time, web administrators, *etc*.[33] Assuming that Internet disclosures are not comprised in the prior art according to the Utility Model Act is therefore also in accordance with the motivation of the lawmaker to focus on means of disclosure that are less likely to cause evidentiary problems.

Therefore, also with respect to the intention of the rule defining the prior art with respect to utility model law, an interpretation where 'written description' does not include Internet disclosures seems justified.

4.2 Jurisprudence

4.2.1 Jurisprudence Explicitly Regarding the Utility Model Law

4.2.1.1 Federal Supreme Court 'Profilkrümmer'

In the decision *Profilkrümmer*, the Federal Supreme Court raised the question whether oral explanations given during a public prior use of a device could be used for supplementing the prior use and would therefore have to be taken into account in the prior art according to the Utility Model Act.[34] The Federal Supreme Court came to the conclusion that the facts had not fully been investigated by the appeal court and therefore remitted the matter to the appeal court. The appeal court was instructed to consider this question if it should become decisive.

The Federal Supreme Court already gave some guidance setting forth that acts could be comprised by the definition of the prior art according to Section 3(1) Utility Model Act if they very closely resembled a 'written description' so that discriminating it from a written description would not be justified.[35] However, according to the Federal Supreme Court, the fundamental decision of the lawmaker – that only written disclosures are comprised in the prior art – must not be circumnavigated.[36]

4.2.1.2 Federal Patent Court 5 W (pat) 413/02

In a further decision dealing explicitly with the interpretation of the term 'written description' according to the Utility Model Act, the Federal Patent Court had to

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[31] TRÜSTEDT, Gebrauchsmuster, 1980 GRUR 877, 878.
[32] *Cf. See supra* note 23.
[33] *Cf. See supra* note 23.
[34] Federal Supreme Court, 1997 GRUR 360 – *Profilkrümmer.*
[35] *Id.*
[36] *Id.*

answer the question whether slides displayed during an oral presentation outside Germany could be classified as a written description and thus had to be taken into account in the prior art according to the Utility Model Act.[37] The Federal Patent Court sets forth that, indeed, the oral presentation had received a 'written character'. However, according to the Federal Patent Court, this description has not been made available to the public. The court sets forth:

> One could imagine that the visual representation of information is equivalent to a description conveyed by a text of words. The subject of the invention can – in a particular case – be conveyed by means of a drawing. However, also in such a case, a document as such must be made available to the public. The mere public availability of the presentation where slides were simultaneously displayed is not sufficient. The intention of Section 3 (1) Utility Model Act – to avoid difficult and time-consuming evidentiary circumstances in the case of a dispute (no investigation of a prior use in a foreign country, no investigations with respect to prior descriptions other from written ones) – speaks in favor of this conclusion.

4.2.2 Jurisprudence Regarding Patent Law

In the decision T 522/94, the technical board of appeal 3.2.5 had to assess whether the opponent had sufficiently substantiated the grounds of appeal.[38] The opponent had relied on two brochures but had failed in substantiating how these brochures had become available to the public. In particular, it had not been clarified whether the document had been handed over to a member of the public or if it could only be looked at by a member of the public for a limited time. The board set forth in ground 28 of the decision:

> On the basis of the statements contained in the notice of opposition, it is not even possible to qualify the booklets pursuant to Article 54(2) EPC either as written documents which were put to one or more members of the public so that they came into possession of it or as piece of the state of the art having been made available to the public 'in any other way', *e.g.* that a member of the public could inspect by reading and handing them back to the provider. In the latter case, it would not be the document which was made available to the public but the knowledge obtained by the reader under the specific circumstances of the case. This could make a considerable difference as far as the content of that piece of prior art is concerned. A written document in the possession of the public can be thoroughly analyzed as there is ample opportunity to read it again and again. In the latter case, the content of the state of the art is determined by what the memory of the reader could retain from a single reading which itself depends upon the specific circumstances (restriction of time, detracting circumstances, *etc*.).

4.3 Conclusion: Requirements for Written Descriptions

In the light of the remarks given above, it seems that a disclosure must fulfill four requirements in order to be qualified as a written description:

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[37] Federal Patent Court, 5 W (pat) 413/02: Decision can be retrieved via the database Juris.

[38] *Cf.* T 522/94, 1998 OJ EPO 421 = 1998 GRUR Int. 884 – *angetriebenes Pfannentransportfahrzeug/TECHMO*.

1. The information must be embodied in a carrier (document). Information without this kind of embodiment – *e.g.* the spoken word – cannot represent a written description. The carrier can be analyzed again and again so that there are no uncertainties with respect to the information content of a disclosure that is physically embodied in a carrier.
2. This document (carrier of the written description) must exhibit some stability. The carrier of the written description must be suited for a durable display of the information. In accordance with this requirement, the Federal Supreme Court speaks of a fixation in writing.
3. The information must be contained in letters, images or symbols and must be perceivable visually or by touching the characters (*e.g.* braille), *i.e.* it must be subjected to immediate perception.
4. The carrier of the written description (the document) must be passed [39]over to a member of the public. It is not sufficient if the members of the public merely have the chance to read the document but do not receive physical control of the document.[40]

4.3.1 Embodiment of a Physical Carrier

A static webpage is stored as an electronic file on a web server. The information is therefore physically embodied in the data store of this web server. Usually, this data store is the hard disk of the server computer.

A typical hard disk design consists of a spindle which holds one or more flat circular disks called platters for recording the data. The platters are made from a non-magnetic material, usually aluminum alloy or glass, and are coated with a thin layer of magnetic material.[41] The magnetic coating is segmented into small logical units (blocks and sectors). An electromagnetic reading head can read out the several sectors and also give them a new polarization.[42] In addition to computer hard disks, other magnetic, optical, magnet optical or electronic storage media are available and in use.[43] All such storage media can serve as the physical carrier of the information contained in the static webpage. The information contained in a static webpage is therefore embodied in a physical carrier.

The situation is different if the webpage is dynamically generated, which means only raw data are stored at the web server. If a particular information request is received, the information is assembled from the raw data and the webpage is generated only in this very moment. Before the request was received, no copy of the webpage as such existed and was stored at the web server. The information contained in the webpage is therefore not embodied in a physical carrier. The web access of electronic databases is usually organized in such a manner that the response to an infor-

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[39] Federal Supreme Court, 1997 GRUR 360 – *Profilkrümmer.*
[40] Federal Patent Court 5 W (pat) 413/02; EPO T 522/94.
[41] A hard disk has furthermore a motor, a mobile writing and reading head, control electronics and an interface to the computer.
[42] *Cf.* <http://de.wikipedia.org/wiki/Festplatte> (as of April 2008).
[43] *Cf.* <http://de.wikipedia.org/wiki/Speichermedium> (as of April 2008).

mation request is dynamically generated. It is concluded that dynamically generated webpages are not written descriptions and should not be taken into account in the state of the art as defined under the Utility Model Act.

4.3.2 Permanency of the Carrier

A static webpage, stored on the server computer in some storage medium is – in principle – stable. Information stored on such an information carrier can be read for several years.

The actual time of permanency of storage media in use today can only be roughly estimated. Magnetic storage media are prone to two sources of dangers. On the one hand, they can be demagnetized in external magnetic fields and, on the other hand, chemical reactions can modify the storage material so that it can not longer be read out.[44] High temperatures during an operation add to the deterioration of the material.[45]

It is assumed that the time of permanency for magnetic tapes amounts to 30 years,[46] for the more stable magnetic hard disks the time of permanency is probably in the order of 50 years.[47] Under permanent operation, the life span of hard disks is apparently significantly smaller, though, amounting to three to four years.[48] The life span of CD-ROMS and DVDs is estimated to be 25 to 100 years,[49] microchips roughly 20 years[50] and magneto-optical disks 30 to 100 years.[51]

The life span of modern storage media is therefore in the same order of magnitude as it is for classical print media which are in use today. The time of permanency for newsprint is estimated at 10 to 20 years, for printed books it is between 100 and 200 years and for books made of acid-free paper at several hundred years.[52]

The modern carriers of information are therefore sufficiently stable.

4.3.3 Immediate Perceptibility

A webpage with text and images is visually perceptible. However, the information embodied in the carrier is not subject to an immediate perception by the eye. Rather,

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[44] Due to the humidity of the air, hard disks are prone to oxydation and hydrolysis, *cf.* TIECK, Haltbarkeit von Datenträgern, available at <http://www.medienportal.biz/_pdf/Haltbarkeit_von_Datentraegern.pdf> (as of April 2008).

[45] *Cf.* TIECK, *supra* note 44. Dissolution of the material is detrimental for the proper functioning of the reading head, *cf.* ZIMMER, Das große Datensterben, in Die Zeit 1999 Nr. 47 of November 18, 1999.

[46] *Cf.* <http://de.wikipedia.org/wiki/Langzeitarchivierung> (as of April 2008).

[47] CAPURRO, Vom Buch zum Internet. Nachhaltige Wissenstradierung, available at <http://www.capurro.de/nachhal.htm; other estimates are more moderate> (as of April 2008), *cf. e.g.* CHRIST, Haltbarkeit von Daten, available at <http://www.christm.ch/software/sicherheit/datenhaltbarkeit.htm> (as of Aprl 2008).

[48] BURGDORF, Laserlicht brennt Daten in die Festplatte, Handelsblatt Nr. 49 of March 10, 2004, 8.

[49] *Cf.* <http://de.wikipedia.org/wiki/Langzeitarchivierung> (as of April 2008).

[50] *Cf.* CAPURRO, *supra* note 47.

[51] *Cf.* CHRIST, Haltbarkeit von Daten, available at <http://www.christm.ch/software/sicherheit/datenhaltbarkeit.htm> (as of April 2008).

[52] *Cf.* <http://de.wikipedia.org/wiki/Langzeitarchivierung> (as of April 2008).

technical equipment is needed, such as a computer and a screen. In contrast to this, a written description on paper is an immediate subject to perception by the reader.

According to several authors, the compulsory use of technical support equipment for reading out the information contained in the carrier does apparently not prejudice that the disclosure is classified as a written description. *Schulte* is of the opinion that a text on a microfilm is a written description.[53] However, such a text on a microfilm cannot be recognized with the naked eye. Rather, for reading the text, a reading device is required which projects the text onto a screen. *Loth* favors an interpretation of the term 'written description' which also comprises sound carriers and – in general – carriers of digital data.[54]

With respect to digital storage media, however, an immediate perception of the information is not possible. Rather, the digital data must first be read out, computed and brought onto a display. Only then can the information contents be grasped by the reader. This difference seems significant for three reasons:

1. To be able to read a traditional paper document, only the document itself is needed. In the case of a carrier of digital data, it will not be sufficient to only have the carrier of the digital information. Rather more, specific hardware and software is needed for reading out the digital data from the carrier.[55] In view of the fact that product cycles are in the order of three to five years,[56] it is not certain that a specific data format is still maintained after a couple of years. Therefore there is an additional risk – which is not present in the case of traditional written descriptions on paper – that an appropriate hardware and software will no longer be available.
2. Looking at a traditional written description on paper, one can usually detect whether the document has undergone some manipulation or not. In case of a carrier of digital data carrier, manipulation cannot be easily detected, neither on the carrier itself nor in the representation of the screen. This does negatively impact the probative value of such a carrier of digital data in comparison to a traditional paper document.
3. A further peculiarity of digital data is that damage of a very small amount of bits can already cause the whole data stored on the carrier not to be interpreted in a correct manner.[57] With respect to a traditional written description on paper, this will not be the case. If a small portion of the document is damaged the bulk of the document can nevertheless be read.

4.3.4 Physical Embodiment Must be Passed over to Member of the Public

If a webpage is requested by the user via its WWW browser, the physical embodiment of the information will not be passed over from the webserver to the

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[53] SCHULTE, Patentgesetz, § 3, Rn. 20.
[54] LOTH, Gebrauchsmustergesetz, § 3, Rn. 30.
[55] *Cf.* ZIMMER, Das große Datensterben, *supra* note 45.
[56] *Id.*
[57] *Id.*

browser.[58] In a standard operation, a new permanent physical embodiment of the information will not be created at the browser, either.[59]

If the browser requests a webpage, a copy of the electronic file will be stored in the browser cache. However, the copy of the webpage will not be stored permanently on the user's computer. Rather, the copy will be abandoned as soon as other webpages are requested by the browser. Therefore, information is not passed over permanently. In the case of an email, however, the electronic data are transferred into the sphere of the addressee and a copy is stored at a mail store at a mail server.

With respect to webpages, the situation seems similar to the situation where a brochure is shown to some members of the public but not handed over to the members of the public on a permanent basis. The EPO board of appeal concluded that the brochure was not a written description but a way of making the information available in a different form.[60] Furthermore, the situation is similar to the case of the slideshow where the Federal Patent Court reached the conclusion that the slides that were presented only once are not a written description.[61]

One might raise the objection that the inspection time is significantly longer with respect to a webpage: As long as computer and browser are switched on, the user can study the webpage carefully over a longer period of time. Furthermore, there is a high likelihood that the webpage can still be retrieved another day, so that the user has the option to again view the webpage in case something was not entirely clear to him. The situation can therefore also be compared to a book from a library that must be returned to the library after a certain time but that – in theory – could be borrowed from that library again. However, there is certainly no guarantee that a webpage that can be accessed today will also be accessible with the same contents the next day. Therefore, it seems justified to assume that here is a further significant difference as compares to traditional paper documents.

4.4 Conclusion

Dynamically generated webpages show no embodiment of the information in a carrier and are therefore – already for that reason – not written descriptions. Furthermore, all webpages – static and dynamically generated – are not subject to immediate perception, since the digital data must first be transformed by hardware and software. Furthermore, the carrier of the information is not handed over to a member of the public. Whether the possibilities to inspect the webpage can nevertheless be compared to a document that is handed over to a member of the public can at least be debated. Therefore, there are good reasons militating for classifying as making information available in any other form and not as written description. This means that they are not comprised by the definition of the state of the art according to the Utility Model Act.

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[58] The hard disk remains at the server computer.

[59] Proxies or gateways are not taken into account here.

[60] T 522/94, Ground of the Decision No. 28, OJ EPO 1998, 421 = GRUR Int. 1998, 884 – *angetriebenes Pfannentransportfahrzeug/TECHMO*.

[61] Federal Patent Court, *supra* note 37.

Registration without Examination: The Utility Model – A Useful Model?

Karsten Königer

Joseph Straus, having spent decades studying the field of intellectual property protection, has always advocated the development of an international patent system. However, to my knowledge, he has never advocated, at least not with the same intensity, the German concept of a utility model for technical inventions. This fact alone is reason enough to take a closer look at the role and justification of utility models.

1. 'Utility models' in International Intellectual Property Law

The term 'utility model' pretends to be English. However, the intellectual property laws of England and the United States do not know 'utility models'. In Germany, the term 'utility model' was introduced by the enactment of the *Gebrauchsmustergesetz* ('Act on Utility Models') of 1891. Apparently, the word 'utility' was chosen to express the difference of the 'beauty model' or 'taste model', meaning the design right, which protects the appearance of a product.[1]

The utility model was internationally recognized by being introduced into the Paris Convention as 'modèle d'utilité'[2] by the Revision Conference of Washington in 1911.[3] However, the Paris Convention does not explain what a utility model might be. A hint can be found in Article 4 E. It reads:

> '(1) Where an industrial design is filed in a country by virtue of a right of priority based on the filing of a utility model, the period of priority shall be the same as that fixed for industrial designs.
>
> (2) Furthermore, it is permissible to file a utility model in a country by virtue of a right of priority based on the filing of a patent application, and vice versa.'

Paragraph 2 shows that the utility model in terms of the Paris Convention has similarities to the patent.[4] However, as Paragraph 1 shows, a utility model application can also give rise to the right of priority of a (later filed) industrial design.

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1 GOEBEL, Der erfinderische Schritt nach § 1 GebrMG, 24 (2005).

2 The authentic language of the Paris Convention is French, Art. 29(1)(c).

3 *Cf.* STRAUS, Der Beitrag Deutschlands zur Entwicklung des internationalen gewerblichen Rechtsschutzes, 2003 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 805, 807.

4 Confusingly the Paris Convention seems to use the term 'modèle d'utilité' not only for the right, *i.e.* corresponding to 'patent', but also for the subject matter of the right (*cf.* Art. 11(1)), *i.e.* corresponding to 'invention'. Thus, according to the Paris Convention's terminology the utility model protects a utility model.

The Patent Cooperation Treaty applies for utility models, too. The applicant of an international patent application may indicate that his international application is for the grant of a patent and a utility model, if possible, under the national law of the respective designated state (Articles 43, 44).

The TRIPS Agreement,[5] however, does not mention utility models. Accordingly, the TRIPS Agreement does not oblige the WTO-members to introduce utility models.

As indicated by *Joseph Straus*, today's discussion on the issue of international harmonization of utility model law is perhaps best demonstrated by the developments within the International Association for the Protection of Industrial Property (AIPPI). AIPPI was not able to achieve agreement or adopt resolution at their executive Committee Meeting in Copenhagen in 1994, and neither at the Congress of Montreal in 1995.[6]

Today a significant number of countries and regions provide the option of utility model protection in addition to or as an alternative to patent protection.[7] In its basic definition, which may vary from one country to another, a utility model is similar to a patent. As the patent, it is an exclusive right registered for an invention, which allows the right holder to prevent others from commercially using the protected invention, without his authorization, for a limited period of time. In most countries where utility models are available, the main differences between utility models and patents seem to be the following: The requirements for acquiring a utility model may be less stringent than for patents. For example, the requirement of 'inventive step' or 'non-obviousness' may be lower. The patent offices do not examine applications as to substance prior to registration. This means that the registration process is often significantly simpler and faster, taking only a few months. The maintenance fees are lower. The maximum term of protection for utility models is shorter than for patents (usually between 7 and 10 years).

2. The Developments on the Level of the European Union

In Europe, there is neither a 'European utility model' corresponding to the European patent granted by the European Patent Office nor a 'Community utility model' corresponding to the Community Design registered by the European Union. There are only national utility model systems that are not harmonized. The United King-

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[5] STRAUS, Implications of the TRIPS Agreement in the Field of Patent Law, in: BEIER/SCHRICKER (Eds.), From GATT to TRIPs, 160 (1996).

[6] *Cf.* STRAUS, The Present State of the Patent System in the European Union, As Compared with the Situation in the United States of America and Japan, 51 (1997).

[7] According to WIPO's website http://www.wipo.int/sme/en/ip_business/utility_models/where.htm (August 13, 2008): Australia, Argentina, Armenia, Austria, ARIPO, Belarus, Belgium, Brazil, Bulgaria, China, Colombia, Costa Rica, Czech Republic, Denmark, Estonia, Ethiopia, Finland, France, Georgia, Germany, Greece, Guatemala, Hungary, Ireland, Italy, Japan, Kazakhstan, Kenya, Kyrgyzstan, Malaysia, Mexico, Netherlands, OAPI, Peru, Philippines, Poland, Portugal, Republic of Korea, Republic of Moldova, Russian Federation, Slovakia, Spain, Tajikistan, Trinidad & Tobago, Turkey, Ukraine, Uruguay and Uzbekistan.

dom has no utility model law at all. A national utility model right conferred by the law of a Member State of the European Union provides protection only on the territory of that state. Given the differences that exist at present, companies have to familiarize themselves with a number of different systems and have to get expensive advice in each of the European countries concerned. This is not only true for companies who seek utility model protection in several European countries, but also for companies who want to sell products in several European countries.

In 1995 the European Commission, the executive branch of the European Union, that is responsible for proposing legislation, presented a 'Green Paper' on 'The Protection of Utility Models in the Single Market'.[8] The Purpose of the Green Paper was to stimulate a debate on the need for Community action in this area, and to propose various options for a possible Community initiative. Among the options were the approximation of the national systems of protection and the creation of a Community system of protection. As a result, in 1997 the European Commission submitted a Proposal for a European Directive 'approximating the legal arrangements for the protection of inventions by utility model'.[9] The European Parliament adopted a legislative resolution on the proposal, and on June 28, 1999, the European Commission presented an amended proposal.[10] Pursuant to Article 1 (1) of this amended proposal, utility model protection should cover 'new inventions involving products or processes that involve an inventive step and are suitable for industrial application'. Article 6 of this amended proposal read as follows:

> Article 6
>
> Inventive step
>
> 1. For the purposes of this Directive, an invention shall be considered as involving an inventive step if, compared with the state of the art, it presents an advantage and is not very obvious to an expert in the field.
>
> 2. The advantage referred to in the previous paragraph must be a practical or technical advantage for the use or manufacture of the product or process in question, or another benefit to the user, such as an educational advantage or an entertainment value.

The word 'very' in 'not very obvious' was to indicate that the inventive step is not as great as that required for a patent.[11] Pursuant to Article 15(3) of the amended proposal the 'competent authority' should not carry out any examination to establish whether the requirements of novelty, inventive step and industrial application have been met, *i.e.* the harmonized national utility model had to be registered without examination. However, Article 6 (4) of the amended proposal read as follows:

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[8] Document COM(95) 370 final of July 19, 1995.

[9] Document COM(97) 691 final, submitted on December 12, 1997, [1998] OJ C 36/13 of February 3, 1998.

[10] European Commission, Amended Proposal for a European Parliament and Council Directive approximating the legal arrangements for the protection of inventions by utility model, Document COM(1999) 309 final, submitted on June 28, 1999, [2000] OJ C 248 E/56 of August 29, 2000.

[11] *Id.*, at 7.

> In the provisions which they adopt in order to comply with this Directive, Member States shall provide that a search report is compulsory in the event of legal proceedings being brought to enforce the rights conferred by the utility model, unless it has already been subject of a previous search report.

Thus, the proprietor who wanted to enforce his utility model by means of legal proceedings, had to request (and pay) a search regarding the state of the art by the 'competent authority'. The enforcement – the purpose of any intellectual property right – was not possible before the Patent Office finished its search report.

Work on this amended proposal was suspended in March 2000, 'because of the difficulty of reaching agreement on some basic problems raised by the proposal and the priority which the majority of the Member States attached to a Community patent.[12] However, in 2001 the European Commission started a consultation on the possibility of a Community utility model.[13] Nevertheless, progress has not been reported. In 2005, the European Commission announced that it would withdraw its proposal for a (harmonizing) Directive on utility models.[14] Therefore, a harmonization of the national utility model systems is not on the European Union's agenda anymore.

The European Council Regulation concerning custom's action against goods suspected of infringing certain intellectual property rights[15] does not apply for (national) utility models.

Also with respect to criminal sanctions the European Union is not seeking harmonization: In 2007, in the context of the deliberation of a European directive on criminal measures aimed at ensuring the enforcement of intellectual property rights, the European Parliament agreed that such a directive should not apply for utility models.[16]

In the absence of any unification of the law, therefore, the holder of such right can prevent third parties from importing protected goods that have been produced and marketed without his consent. Thus the intellectual property rights conferred by the Member States can of their nature be used to hinder the free movement of goods. Given the differences that exist at present, companies have to familiarize themselves with a number of different systems or take expensive advice in each of the Member States concerned regarding unexamined utility model rights.

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[12] European Commission, Document SEC(2001)1307 dated March 1, 2002. Waiting for the Community Patent requires having a lot of patience. *See* STRAUS, *supra* note 6, at 51 (1997); SCHNEIDER, Die Patentgerichtsbarkeit in Europa – Status quo und Reform 14 *et seq.* (2005).

[13] European Commission Staff Working Paper dated July 26, 2001, Document SEC(2001) 1307.

[14] Document COM(2005) 462 final of September 27, 2005; formally withdrawn on March 17, 2006, [2006] OJ C 64/3 of March 17, 2006.

[15] Council Regulation (EC) No 1383/2003 of July 22, 2003.

[16] European Parliament legislative resolution of April 25, 2007 on the amended proposal for a European directive on criminal measures aimed at ensuring the enforcement of intellectual property rights (COM (2006)0168), Document P6_TA(2007)0145.

3. The Situation in Germany

In Germany on December 31, 2006, there were 104,117 utility models in force, compared to 467,166 patents.[17] Pursuant to the German Act on utility models, utility models are registered for inventions. The invention should be new, involve an inventive step and be susceptible of industrial application. (These qualities of the invention, however, are not examined before registration.) As in patent law, Article 52(2) EPC, certain subject matter is not regarded as an invention within that meaning.[18] There is one fundamental difference as to protectable subject matter between patent law and German utility model law: Utility models are not registered in respect of methods.

As to novelty and inventive step, the 'state of the art' in terms of German utility model law is different from the 'state of the art' in terms of patent law. The state of the art in terms of the German utility model law comprises knowledge made available to the public by written description (anywhere) or by use in Germany before the date of filing. It does not comprise oral description and public prior use outside Germany.[19] Thus, the state of the art in terms of German utility model law is limited compared to the state of the art in terms of German and European patent law which comprises 'everything made available to the public by means of a written or oral description, by use, or in any other way'.[20] However, more important is the fact that the German utility model law provides a grace period:[21] A disclosure of the invention shall not be taken into consideration if it occurred no earlier than six months preceding the filing and is based upon a description or use by the applicant. These differences between German patent law and German utility model law are due to fact that the provisions in the German Act on Utility Models concerning the novelty requirement have outlasted the reforms of patent law in the course of international harmonization.[22] In this respect, one could consider the German utility model law as a museum for German patent law – showing that some things were better in the past.[23]

A utility model application looks like a patent application: claims, description and possibly drawings. It is filed with the German Patent and Trademark Office. The utility model is registered without examination as to the novelty and inventive step. The German Patent and Trademark Office publishes a utility model specifica-

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[17] Jahresbericht des Deutschen Patent- und Markenamts (Annual Report of the German Patent and Trademark Office) 2006, 63, 60, 17.

[18] Regarding the question of patentable subject matter *see* NACK, Die patentierbare Erfindung unter den sich wandelnden Bedingungen von Wissenschaft und Technologie, 147 (2002).

[19] *Cf.* KLICZNIK, Neuartige Offenbarungsmittel des Standes der Technik im Patentrecht, 125 (2007), discussing the classification of *e.g.* publications in the internet.

[20] Article 54(2) EPC.

[21] In this respect *Joseph Straus* acknowledges the German utility model law, *see* STRAUS/KLUNKER, Harmonisation of International Patent Law, 38 IIC 907, 934 (2007).

[22] *E.g.* by the Strasbourg Convention of November 27, 1963, on the Unification of Substantive Law on Patents for Invention.

[23] STRAUS, Grace Period and the European and International Patent Law, IIC Studies, Vol. 20, 2001.

tion which, regarding its structure, is identical to a patent specification. The maximum term of protection is 10 years from the application date.

Upon registration the utility model gives rise to injunctive relief. The extent of protection is determined by the claims according to the same rules that apply for patents.[24]

A German utility model right can also be created by 'branching off' from a German or European patent application or even from a granted German or European patent as long as the opposition proceedings are pending. The following example may illustrate this: Someone files an opposition to a European patent granted by the European Patent Office. The Opposition Division of the European Patent Office is convinced that, having regard to the state of the art, the invention was obvious to a person skilled in the art, and revokes – five years after the application date – the European patent. The (former) patent proprietor – using the specification of the revoked patent – applies for a German utility model and claims as a filing date the filing date of the European patent application. The novelty grace period is applicable, too.

The utility model is registered without examination. According to the German law this utility model registration gives rise to injunctive relief for the proprietor if the utility model is infringed.

At the request of the applicant or any other interested party the German Patent and Trademark Office conducts a search regarding the state of the art. The request can be made at any time. However, this search by the Patent Office is not a precondition for injunctive relief. The search report contains the numbers of the documents found and symbols indicating if the Patent Office deems the documents relevant. However, no reasons are given. The numbers of the documents found are published in the utility model register, which is available online. In 2006, the number of utility model applications being 19,766, the number of search requests was 2,952 regarding applications and 445 to registered utility models.[25]

In utility model infringement litigation, the defendant can allege nullity of the utility model as a defence. Unlike under German patent law, this defence is admissible, *i.e*. the defendant is not forced to file a separate nullity action before another court or authority (the Patent Office or the Federal Patent Court). This admissibility of the nullity defence corresponds to the non-examination before registration. However, the defendant bears the burden of proof.[26] Thus, it is the defendant who has to make the effort to prove that the invention did not meet the requirement of inventive step.

The German Act on Utility Models also provides for custom's actions against goods 'evidently' infringing a utility model.[27] It is, however, unclear how the Ger-

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[24] German Federal Supreme Court (Bundesgerichtshof, BGH), May 31, 2007, X ZR 172/04, 2007 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 1059 – *Zerfallszeitmessgerät*.

[25] Jahresbericht des Deutschen Patent- und Markenamts (Annual Report of the German Patent and Trademark Office) 2006, 63, 60, 17.

[26] *Cf.* LOTH, Gebrauchsmustergesetz, 544 (2001).

[27] § 25a GebrMG (Gebrauchsmustergesetz – Act on Utility Models); for details *see* LOTH, *id*.

man legislator considered it possible that the customs authorities adjudge the validity of a utility model, *i.e.* if its subject matter involves an inventive step.

Furthermore, the German Act on Utility Models provides for criminal measures: It threatens the infringer with imprisonment for up to five years. However, no case of imprisonment is reported. It is unclear how the German legislator thought a criminal court would decide on the validity of a utility model.

3.1 The Justification for the German Utility Model System

In 1985, in its proposal for a new Act on Utility Models (which was later enacted) the German Government had given the following reasons for the utility model:

> The utility model is mainly to quickly and inexpensively make available a manageable (easy to handle) industrial property right for sole inventors and small and medium-sized enterprises for their everyday life inventions.[28]

These reasons given by the German government reflect what had been claimed for nearly one hundred years to be the advantages of the utility model compared to the examined patent. The concept of the utility model was supported by (parts of) the *Max Planck Institute*, too:[29]

> [T]here will still be a need for a minor industrial property right for individual inventors, small and medium-sized industry, and for short-lived inventions which need immediate protection against imitation. This must be an entitlement which can be acquired simply and cheaply, for which a costly and lengthy preliminary examination of protectability would be prohibitive.[30]

3.2 Is There an Inner Correlation between the Supposed Features of the Utility Model?

Until quite recently (see below), the main features and aims of the utility model were, according to the legislator's given reasons, supposed to be:

(1) protection for technical inventions which involve only a small inventive step,

(2) protection to be obtainable simply,

(3) protection to be inexpensive,

(4) protection to be obtainable rapidly.

The correlation between the lower degree of inventiveness, *i.e.* a low threshold for protection, and the shorter term of protection seems plausible. The correlation between a lower degree of inventiveness, however, and the waiver of examination appears unclear. One could just as well argue that the determination of a small inventive step is more difficult, so that primarily small inventions should be exam-

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[28] Document BT-Drs. 10/3903 dated September 26, 1985, at 16.

[29] BEIER, Gebrauchsmusterreform auf halbem Wege: Die überholte Raumform, 1986 GRUR 1, 2.

[30] BEIER, The Future of Intellectual Property in Europe – Thoughts on the Development of Patent, Utility Model and Industrial Design Law, 32 IIC 157, 166 (1991).

ined before their registration which gives rise to injunctive relief. Especially for competitors it might be more difficult to adjudge if a certain small invention is protected or not.

The correlation between the lower degree of inventiveness and the lower costs, however, on closer examination, appears questionable. Does the law want to subsidize 'small' inventions at the expense of 'big' inventions? The reason for this correlation seems to be the widespread belief that small inventions are made by small companies whereas big inventions are made by big companies. And, of course, the legislator wants to encourage small companies. In 2001, for example, the European Commission published a 'Staff Working Paper' in which it is stated:

> Moreover, because of their limited financial and human resources, these [small and medium-sized] companies' research and development activities often lead to technical inventions involving only a minor inventive step which do not necessarily meet the conditions for patent protection.[31]

To me it is unclear on which evidence such assumptions are based.[32] The question, whether a person finds a technical solution that is not obvious to a person skilled in the art, should hardly depend on the size of the company for which the person works.

3.3 The Abandonment of the 'Lower Threshold' Doctrine by the German Federal Supreme Court

All the discussed – anyway doubtable – correlations of the lower threshold for protection and the other features of the utility model are now challenged by a ruling of the German Federal Supreme Court. In the year 2006, the German Federal Supreme Court held that regarding the requirement of inventive step in utility model law the same principles apply as in patent law.[33] Thus, apart from the different definition of the state of the art (*e.g.* oral description, prior use outside Germany, grace period) only those inventions can be protected by a German utility model that would meet the requirements of patentablilty, too.

This decision can be regarded as a revolution insofar as the fundamental justification of the utility model, namely to provide protection for technical inventions that do not meet the criteria of patentability, was disregarded. The Court stated that it could not find a capable criterion for (utility model) protectability that lies between non-obviousness in the sense of patent law and novelty. Thus, an invention that is obvious will not be protectable neither by a patent nor by a utility model – except that the state of the art in the sense of utility model law differs relevantly from the state of the art in the sense of patent law.

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[31] European Commission Staff Working Paper, dated July 26, 2001, Document SEC(2001) 1307.

[32] According to *Goebel,* the unpublished study by the ifo Institut München 'Die wirtschaftliche Bedeutung des Gebrauchsmusterschutzes für Unternehmen in der Europäischen Union, Abschlussbericht im Auftrag der Europäischen Kommission, GD XV, erstellt von Günter Weitzel (1994) did not supply evidence, either. *See* GOEBEL, *supra* note 1, at 150.

[33] German Federal Supreme Court (Bundesgerichtshof, BGH) June 20, 2006, X ZB 27/05, 2006 GRUR 842 – *Demonstrationsschrank.*

3.4 Is the German Utility Model Manageable?

As mentioned above, the German legislator had the idea that the utility model was, compared to the patent, manageable, *i.e.* easy to handle. In the legal literature, one can find the imagination that the utility model was an intellectual property right 'geared towards inexperienced applicants'.[34]

In reality, however, the utility model application is as difficult as a patent application. Moreover, unlike in the patent granting procedure it is not possible to correct certain mistakes. The German utility model application has the same structure as a patent application: claims, description and possibly drawings. The scope of protection is determined by the claims as it is for patents.[35] This structure requires that a utility model application is written by a person that is as competent as an educated patent agent.[36] There are two legal commentaries on the German Act on Utility Models, which both comprise nearly one thousand pages each. This fact alone may show that utility model law is not geared towards inexperienced applicants.

An inexperienced inventor who writes and files a utility model application by himself – no matter how valuable his or her invention is – will most probably end up with a registered but worthless utility model.[37] Although not creating any protection, the publication of the utility model will most likely make it impossible to get protection by an improved second application. The competitors will be informed about the applicant's invention 'for free'. The idea that a utility model application needs less care and competence than a patent application, can have fatal consequences especially for sole inventors. 'Inexperienced applicants', towards whom the utility model system is supposed to gear, must be warned of filing a utility model application by themselves.

The non-examination of utility model applications can also lead to peculiar registrations. For example, the claims of the German utilty model No. 20 2006 008 809.1 read as follows:

> Schutzansprüche [Claims]
>
> 1. Folgende Schutzansprüche sind gekennzeichnet durch: [Following claims are characterized by]
>
> 2. Die Darreichungsform des Honigs in Scheiben (variabel in Dicke und Form) [The presentation form of the honey in slices (variable in thickness and form)]
>
> 3. Das Beimengungsverhältnis an Verdickungsmittel [The mixture ratio on thickening agent]

It is hard to imagine how a court would construe these 'claims'. Whatever the invention might have been – this utility model will most probably not give rise to an

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[34] *Cf.* KERN, Towards a European Utility Model Law, 25 IIC 627, 637 (1994).

[35] German Federal Supreme Court, May 31, 2007, X ZR 172/04, 2007 GRUR 1059 – *Zerfallszeitmessgerät*.

[36] *Cf.* BAYER, Der Patentanwalt – Stellung und Funktion im Rechtssystem, 122 (2002).

[37] *Cf.* NEWMAN, Circuit Judge, United States Court of Appeals for the Federal Circuit, in *Hilton Davis Chemical v. Warner-Jenkinson Co. Inc.*, 62 F.3d 1512, 1536 (Fed. Cir. 1995) regarding the general difficulty in drafting claims.

injunction granted by a court. It might, however, discourage inexperienced competitors.

3.5 Is the German Utility Model Cheaper than a Patent?

3.5.1 The Costs Paid by the Applicant

The application fee for a German utility model is 40 Euros. The application fee for a German patent application is 60 Euros (50 Euros when filed online). The fee for the (optional) state-of-the-art search for the utility model is 250 Euros. The fee for the examination of a German patent application is 350 Euros. The request for this examination (of the German patent application), however, can be made within 7 years from the filing date. The total maintenance fees for the utility model for 10 years are 1,090 Euros. The total maintenance fees for the first 10 years of a German patent or patent application are 1,420 Euros. Thus, the differences between the German utility model and the German patent application as to official fees are rather symbolic.

The significant costs for the utility model application and the patent application are the attorney's fees, anyway. As shown above, a utility model application should be written by a specialized person like a patent agent. Even in case of a 'simple' invention, it will be hard to find a German patent agent who writes a utility model application for less than 2,000 Euros. The time and effort required by the patent agent, and thus the costs, for the drafting of the patent application and the utility model application should be identical. The utility model might be cheaper insofar as there are not office actions that need to be responded to by the patent agent. The response to office actions in the course of the granting procedure should not be regarded as burdensome duties, but as opportunities to draft useful claims. As shown above, especially if the applicant is inexperienced, the risk is high that the first draft of the claims fails.

The German utility model, supposed to be inexpensive, can even become an extremely expensive experience for the applicant when somebody else files a request to cancel the utility model. Such a request can be filed by any person at any time. As in German civil proceedings, the losing party has to bear the costs including the costs incurred by the other party.[38] These costs can easily add up to 10,000 Euros. By contrast, in German and European patent opposition proceedings each party bears its own cost.[39]

Thus, from the financial point of view, there should be no reason for an applicant to prefer a German utility model to a (German) patent application. Besides, German patent law provides legal aid[40] for poor applicants in the granting procedure and even the assignment of counsel to the assisted applicant.[41]

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[38] § 17(4) GebrMG.
[39] § 62 PatG (Patentgesetz – Patent Act); Article 104 EPC.
[40] § 129 PatG.
[41] § 133 PatG.

Regarding the costs and the value of utility models the costs of enforcement have to be considered, too. An inventor who has to avoid the costs for a patent agent will hardly seek the help of lawyers to enforce his utility model. In addition, there is the risk of failed litigation. Thus, without sufficient resources to pursue lengthy litigation, probably against wealthier organizations, the value of a registered right is limited, anyway.

3.5.2 The costs paid by the competitors

The German utility model causes not only costs that have to be paid by the applicant. Probably higher are the costs that have to be paid by competitors who are confronted with the registration of the unexamined right. This confrontation can be caused by freedom-to-operate searches by the competitor, or by warning letters received by the proprietor of the utility model. Also, advertising with the claim 'protected by utility model' is allowed.[42] Since the utility model has not been examined by the Patent Office, the competitors are forced to examine the validity of the often unclear claims. These costs are especially high for small and medium-sized enterprises (SME) who are not used to receiving warning letters. They need more (expensive) advice. The German law provides, under certain circumstances, a damage claim in case of an unjustified warning letter.[43] Most companies, however, want to avoid lengthy litigation. Thus, especially the SMEs can be discouraged by unjustified warning letters – and might stop selling or producing the alleged infringing products because they think they do not have sufficient resources for lengthy litigation. In other cases, companies cannot sell their products anymore because their customers, like trading companies, received warning letters and thus do not want to buy the product from the company anymore. Thus, in many cases, SMEs are not the beneficiaries of the fact that the utility model is unexamined, but the victims.

3.6 Injunctive Relief upon Registration

3.6.1 The rights conferred by the registration of a German utility model

The German utility model is registered within a few months after the application date. In this respect, the utility model meets the expectations of the German legislator. The registration gives rise to injunctive relief.

Apparently, there are no statistical data available about the number of German utility model infringement lawsuits. The number of new patent infringement cases in Germany in the year 2000 was 579.[44] Considering the fact that the number of patents in force in Germany is about five times as high as the number of utility models, one could estimate that the number of utility model infringement cases per year is about 100. Another indication of the number of infringement conflicts is the number of cancelation proceedings. In the year 2006, 230 motions for cancelation of a util-

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[42] *Cf.* BÜHRING, Gebrauchsmustergesetz, 712 (7th ed. 2007).

[43] *Cf.* German Federal Supreme Court (Bundesgerichtshof, BGH), July 15, 2005, GSZ 1/04, 2005 GRUR 882 – *Unberechtigte Schutzrechtsverwarnung*.

[44] SCHNEIDER, *supra* note 12.

ity model were filed with the Patent Office.[45] Considering these numbers, it can be assumed that the number of infringement conflicts that lead to legal proceedings is less than 300 per year.

Although the law provides injuctive relief upon registration, the probability that a German court would grant a preliminary injunction based on a utility model is very low. The courts know about the nature of the utility model as an unexamined right. Thus, the German courts in most cases would grant in injunction only after proceedings on the merits. In reality, this means that it would take at least half a year, more realistically one year, until a first decision is rendered.[46]

Besides such factual obstacles to quick protection, the fact that the registration without examination gives rise to injunctive relief seems inconsistent, considering the rights that are conferred by a published (European) patent application.

3.6.2 The rights conferred by a published European patent application

The European Patent Office publishes a European patent application after the expiry of a period of eighteen months from the date of priority, or at the request of the applicant, before the expiry of that period.[47] Pursuant to Article 67(1) EPC, from the date of such publication, a European patent application provisionally confers on the applicant such protection as an examined and granted European patent in the contracting states designated in the application as published, *i.e.* the same rights as would be conferred by a national patent granted in those states. Pursuant to Article 67(2) EPC, however, contracting states may confer protection which is less than that of a national patent. That protection may not be less, though, than that which would result from publication of an unexamined national patent application. The applicant must at least be given the right to claim compensation reasonable in the circumstances from an unauthorised user. This means, the contracting states are not obliged to confer injunctive relief if their national law does not provide injunctive relief in case of an infringement of a national patent application. Apparently, all the contracting states have chosen to lower the level of protection of a European patent application to the level of the national patent application.[48] This implicates that *e.g.* in Germany, the UK and the Netherlands there is no injunctive relief in case of an infringement of a European patent application. Most of the national laws of the contracting states provide only compensation, whereby often the court hearing the infringement stays proceedings until the patent is granted[49]. Obviously, the majority of the European national legislators were skeptical to provide injunctive relief as long as the European patent application has not been examined and found to meet the criteria of novelty and inventive step.

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[45] Jahresbericht des Deutschen Patent- und Markenamts (Annual Report of the German Patent and Trademark Office) 2006, 63, 60, 17.

[46] By that time, the examination of a patent application could be finished.

[47] Article 93 EPC.

[48] EUROPEAN PATENT OFFICE, National Law relating to the EPC, 59-65 (13th ed. 2006).

[49] *Id.*

In view of this valuation of an unexamined European patent application by the German legislator it is questionable why the applicant is given the opportunity to have a utility model registered and to seek injunctive relief.

4. Conclusion

The German utility model does not meet the expectations the German legislator apparently had. Apart from rare exceptions, the German utility model does not provide protection for technical inventions that do not meet the criteria of patentability. The German utility model application is as difficult to handle as a patent application. The fact that the German utility model gives rise to injunctive relief without examination seems inconsistent with the fact that the publication of a European patent application does not. Utility models cause a lot of legal uncertainty for competitors, especially for SMEs.

There certainly is a need for harmonization of utility model law in Europe. One element of such a harmonization, however, should be that a utility model may not give rise to injunctive relief unless it has been examined.

Nonobviousness in German Patent Nullity Proceedings[1]

Hans-Georg Landfermann

1. Introduction

In Germany, the Federal Patent Court (*Bundespatentgericht*) has exclusive jurisdiction on actions aiming at the revocation of a patent. This is true not only for national German patents, but also for the German part of a European 'bundle of patents.' The main ground on which such actions are based is the lack of an inventive step, in other words the lack of the requirement that that the patented invention was not obvious to a person skilled in the art. The decisions in these nullity proceedings are subject to an appeal to the Federal Supreme Court (*Bundesgerichtshof*). This paper in honor of Professor Straus shall give an impression on how the two German courts, in deciding patent nullity matters, handle this central notion of nonobviousness. Special regard will be given to the following questions:

- Are the standards in determining nonobviousness in the German Courts divergent from those in the European Patent Office?
- Can the burden of proof help to solve the difficult question of nonobviousness?
- Should the actual power of control of the Federal Supreme Court be restricted?

2. Statistics of Nullity Proceedings

The great importance of patent nullity proceedings in Germany may be illustrated by some figures:

Actions on Revocation of a Patent at the Federal Patent Court	
Year	**Number of Actions Filed**
2000	189
2001	166
2002	163
2003	181
2004	200
2005	225
2006	221
2007	234

[1] This paper is a revised version of a report given to the members of the Boards of Appeal of the European Patent Office on May 17, 2006. Later developments have been included.

Of course, one decisive factor for the high number of nullity proceedings is the German rule that infringement and nullity are to be asserted in different proceedings (*Trennungsprinzip*). A party confronted with an action on infringement of a patent and wishing to question the validity of the patent has to start a separate action on revocation. Another factor might be that parties wishing to attack parallel national patents or a European Patent valid in a number of countries choose the German Federal Patent Court to test the validity of the patent protection. The inclusion of Technical Judges in the Nullity Senates of this court allows a decision without external experts; by this, the proceedings become cheaper and quicker. In fact, many actions on revocation at the Federal Patent Court are brought by foreign parties attacking the German part of a wider reaching patent protection.

On the other hand, in relation to the sum of all patents granted with validity in Germany, the total number of the actions on revocation is small. It is far below 1%, regardless of whether you consider the figures of one special year or the number of all patents granted and all actions filed since World War II.

Figures derived from an internal study presented in 2006 by Judge *Baumgärtner* of the Federal Patent Court show the growing percentage of actions on revocation directed against European patents (compared with all actions on revocation including those concerning German patents):

Actions on Revocation of a European Patent at the Federal Patent Court	
Year	**Number of New Actions**
2000	108 (55 % of all new actions)
2001	106 (65 %)
2002	99 (61 %)
2003	127 (71 %)
2004	146 (74 %)
2005	161 (71 %)

This tendency is easy to explain: It is not indicating a higher quality of German patents, but it simply corresponds to the fact that the number of valid European patents in Germany grows much quicker than the number of national German patents. In the year of 2007, for example, the German Patent and Trademark Office granted 17,739 patents,[2] whereas in the European Patent Office the number of granted patents was 54,699, of which 53,934 (98,6 %) were effective in Germany.[3] At the end of 2007, there were 131,362 German patents in force, whereas the number of European patents effective in Germany had risen to 501,199.[4]

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[2] German Patent and Trademark Office (GPTO), Annual Report (2007), at 109, available at <http://presse.dpma.de/presseservice/publikationen/jahresberichte/index.html> (as of July 2008).

[3] EPO, Annual Report (2007), at 72, available at <http://www.epo.org/about-us/office/annual-reports/2007.html> (as of July 2008).

[4] GPTO, Annual Report (2007), *supra* note 2, at 110.

The results of the nullity proceedings are published every year in the Annual Report of the Federal Patent Court and, in greater detail, in the march-issue of the *Blatt für PMZ* of the German Patent and Trademark Office. They differ rather substantively from year to year. But in a generalized way, the following can be stated:

About one third to one half of the actions on revocation at the Federal Patent Court are finished without judgment, *e.g.*, by withdrawal of the action after an out-of-court arrangement between the parties. Looking at the judgments, one half to two thirds of them state the nullity or partial nullity of the patent – a rather high rate of success of the plaintiffs at the first instance! By far, most of these revoking decisions are based on lack of an inventive step. This has been my experience during five years as presiding judge of a Nullity Senate, and it is confirmed by others: *Brinkhof* and *Schutjens* report that during the years 1983 to 1992, the German Federal Patent Court revoked the German part of European patents fully or partly in 24 cases and that 16 of these decisions (66%) were based on lack of an inventive step. [5]

A great percentage of the judgments of the Federal Patent Court are subject to an appeal. In 2007, for example, the Court issued 103 judgments in nullity proceedings, and 62 appeals were launched against such decisions. Generally, about half of the appeals are withdrawn – reasons may be a settlement by the parties or the course of the appeal proceedings showing that the appeal will have had no success.

In about half of the remaining cases, the decision of the Federal Patent Court is maintained and in the other half it is changed. This seems to be a very high percentage of change; it is to be considered, however, that the judgment of the Federal Supreme Court may be based on new facts and on new motions of the parties.[6] I may mention also that the year of 2006, looked at separately, shows quite a different picture: out of a total of thirteen judgments of the Federal Supreme Court in nullity proceedings, ten upheld the decision of the Federal Patent Court. In 2007, the situation was less extreme: fourteen nullity decisions of the Federal Patent Court were upheld, eight were changed by the Federal Supreme Court.

Are European patents more likely to be revoked than German patents? The study of Judge *Baumgärtner* points in this direction. According to his research concerning the years 1986 to 2005, the Federal Patent Court had issued in total 1,239 judgments in nullity proceedings. 582 of these judgments concerned European patents; 415 of them (71%) were revoked in total or in part. Out of the remaining 657 judgments concerning German patents only 387 (59 %) stated the nullity or partial nullity of the patent.

This could be an indication that the standards of the European Patent Office are divergent from those of the Federal Patent Court, to a higher degree than the standards of the German Patent and Trademark Office are. And since in most of the cases,

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[5] BRINKHOF/SCHUTJENS, Revocation of European Patents 25 (1994). – *Cf.* WINKLER, Bundespatentgericht/Bundesgerichtshof – Das Nichtigkeitsverfahren im Wandel, 2007 VPP-Rundbrief 149: *'Im Streit ist fast immer die Patentfähigkeit, meist die Erfindungshöhe …'*

[6] *See infra* under 6.

the inventive step is the decisive issue, it is not improbable that there are differences in the evaluation of nonobviousness.

3. Different Ways to Define the Inventive Step

The interpretation of the difficult term "nonobviousness" must start from the wording of the statutes. Sentence 1 of Article 56 of the European Patent Convention gives the following rule:

> An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art.

The equally binding German text of this provision is identical with Section 4 of the German Patent Act.

During the decades of practical application of these texts, many 'sub-rules' have been developed by German courts with the aim to define the inventive step in a more specific way for different types of inventions.[7] The leader in these efforts is of course the Tenth Civil Senate of the Federal Supreme Court, which has the highest instance not only for patent nullity matters but also in patent infringement proceedings. The Tenth Senate permanently observes and takes into account the developments in the decisions of the Boards of Appeal of the European Patent Office and in the jurisprudence of foreign countries.

The examiners of the European Patent Office as well as those of the German Patent and Trademark Office rely, when assessing the inventive step, on Guidelines for Examination. The respective section is especially detailed in the European Office,[8] whereas the section of the German guidelines on the inventive step seems rather short, taken the enormous practical importance of the notion.[9] For the courts, these guidelines are of course not binding. Quite the contrary, the guidelines try to explain how the legal rule is interpreted by the courts and, in case of the European guidelines, by the Boards of Appeal.

For example, the guidelines of the German office refer to a decision of the Federal Supreme Court concerning computer-implemented inventions: if an invention consists of technical and non-technical aspects, it is not correct to separate the technical aspects from the others and to assess the inventive step only with regard to the technical aspects.[10] A decision of the Federal Patent Court is cited to show that non-technical aspects may, however, be neglected if they neither directly nor indirectly contribute to the technical aspect of the claimed subject matter.[11]

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[7] *Cf.* TILMANN, Neue Überlegungen im Patentrecht, 2006 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 824, 826.

[8] Guidelines for examination in the European Patent Office (status December 2007), Part C Chapter IV, 22- 33.

[9] 2004 Blatt für Patent-, Marken- und Zeichenwesen (Bl.f.PMZ) 69, 74.

[10] 1992 Blatt für Patent-, Marken- und Zeichenwesen (Bl.f.PMZ) 255 = 117 BGHZ 144 – *Tauchcomputer.*

[11] 2002 Mitteilungen der deutschen Patentanwälte (Mitt.) 275 = 45 Entscheidungen des Bundespatentgerichts (BPatGE) 133 – *Elektronischer Zahlungsverkehr.*

In a similar way, the guidelines of the European Patent Office cite decisions of the Boards of Appeal. It is stated, for example, with reference to a decision of a Technical Board of Appeal: if a claim consists of a 'combination of features' and each feature taken by itself is obvious, the combination may nonetheless involve an inventive step if the functional interaction between the features produces a synergistic effect.[12]

3.1 The Construction of the Patent Claim as Often Decisive Element

The judge called to decide on the validity of a patent claim has to, at first, find out what the content of the claim is. He has to interpret the meaning of the wording of the claim, taking into account all parts of the patent specification, especially the description and the drawings. In many cases, this construction of the claim is decisive for the outcome of the revocation proceeding. If elements important for the nonobviousness of the invention are not clearly laid down in the wording of the claim, the prospects for the owner of the patent are bad. During revocation proceedings, there is no possibility to redraft the wording of the patent just to make the sense clear; a limitation of the claim, however, is possible and sometimes useful.[13]

3.2 Important Criteria in the Practice of the Federal Patent Court

When the content of the patent claim has been ascertained, the next step usually consists in comparing this content with publications showing the state of the art, sometimes with prior use asserted by the plaintiff. Did the state of the art at the time of the patent application or the date of priority make the subject-matter of the patent claim obvious to a person skilled in the art? Could a person skilled in the art, even without concrete indications, find the solution of the patent claim on the basis of his or her knowledge and experience?

To answer these questions, a somewhat loose approach is usual: the aspects in favor of an inventive step are opposed to other aspects questioning it.

In the practice of the Federal Patent Court, aspects in favor of an inventive step are, for example:

- The state of the art had been unchanged for many years before the patent was applied for.
- The development on the technical field involved pointed to another direction.
- More than two documents had to be combined to get to the core of the invention.

Arguments against an inventive step are, among many others:

- The invention was just a simplification of a known construction; a person skilled in the art will always try to find solutions which are less complicated and less costly.

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[12] T 389/86, 1988 OJ EPO 87.

[13] German Federal Supreme Court (Bundesgerichtshof, BGH), 2005 GRUR 145 – *Elektronisches Modul*; KEUKENSCHRIJVER, Patentnichtigkeitsverfahren 87 (2nd ed. 2005).

– The solutions of the invention were state of the art in other technical fields with similar problems.
– A part of a known construction was replaced by another part with similar functions and equally known to a person skilled in the art.

3.3 Possible Reasons for Different Standards in the EPO and the German PTO

The criteria of the Federal Patent Court for the assessment of the inventive step correspond, to a very large extent, to those of the German Patent and Trademark Office. This is guaranteed by the fact that the Technical Judges of the court are recruited exclusively out of the examiners of the German office and that, on the other hand, some judges of the court return to the office to take over leading functions within the patent divisions.

Such close relationship does not exist between the Federal Patent Court and the European Patent Office, in spite of many personal contacts and informal exchanges of opinions, facilitated by the fact that both institutions are situated in Munich. In consequence, it is more difficult to keep unitary standards for the evaluation of patentability.

One field may be mentioned on which the European Patent Office seems to proceed in a different way compared with the German Patent and Trademark Office and the Federal Patent Court:

For German examiners evaluating inventiveness and for the judges of the Federal Patent Court, it is clear that not only the documented state of the art and, where required, prior use is to be taken into consideration but also the knowledge and the abilities of which an average person skilled in the art (‘*Durchschnittsfachmann*’) disposed at the date of priority of the patent. It is often difficult, of course, to ascertain this knowledge and ability. The Federal Supreme Court, too, has insisted on the necessity of this consideration: The inventive step is missing not only if the solution of a technical problem is obvious because of incitements taken from the state of the art, but also if it is obvious on the basis of the practical experience of an average person skilled in the art.[14] In consequence, it is laid down in the German Examination Guidelines that the documented state of the art must be connected with the abilities of a person skilled in the art. In the guidelines of the European Office, it is also stated that the assessment of the inventive step must be based on the knowledge and ability of a person specialized in the respective technical field; other passages, however, seem to indicate that the ‘person skilled in the art’ as ‘ordinary practitioner’ is restricted to ‘normal means and capacity for routine work and experimentation’ and that ‘obvious’ is just that ‘which does not go beyond the normal progress of technology but merely follows plainly or logically from the prior art.’

Another factor contributing to this divergence might be that it is much easier to have a clear picture of an ‘average person skilled in the art’ on a certain technical

[14] *Cf.* German Federal Supreme Court (Bundesgerichtshof, BGH), 2003 GRUR 693 – *Hochdruckreiniger.*

field if one restricts the view to Germany only and does not include other European countries with different professional educations and industrial trainings.

3.4 New Developments

An additional reason for the tendency of German institutions to have a higher level of inventive step than the European office has been a differentiation of German legislation. The German law on Utility Models describes the necessary inventive step with another formula (*'erfinderischer Schritt'*) than the expression in the Patent Act (*'erfinderische Tätigkeit'*). According to the explanation in the governmental draft of the Law on Utility Models, this difference in terms shall indicate that a lower degree of inventiveness is sufficient for a utility model compared with a patent.[15] The guidelines of the German Patent and Trademark Office for the examination of patents mention this and induce the examiners to reserve a low degree of inventiveness for utility models and to require, for the grant of a patent, a somewhat higher degree.

However, in a decision of 2006, the Federal Supreme Court has questioned this differentiation. It has stated that the different descriptions of the inventive step in the Patent Act on the one side and in the Law on Utility Models on the other must be interpreted to indicate the same degree of inventiveness.[16] This decision has been criticized by some authors,[17] but it seems probable to me that it will be accepted by the courts and the Patent and Trademark Office; the application of law gets much easier without the two-step approach to nonobviousness. Therefore, this reason for a divergence in the practice of German and European examination will probably be absent in future.

A striking example illustrates the existence of divergent views on nonobviousness, especially on the influence of the knowledge and abilities of a person skilled in the art, in the European Patent Office on the one hand and in the German Patent and Trademark Office and the Federal Patent Court on the other. At the same time, this case seems to show another new development: an approximation of the position of the Federal Supreme Court to that of the European Patent Office.

An action on revocation was filed at the Federal Patent Court against the European patent EP 0 677 379 concerning an 'apparatus for converting sheet-like stock material into cut sections of dunnage' – in simplified words, a machine producing protective cushioning material for packaging purposes. As shown in Fig. 3 of the patent specification, the machine mainly consisted of:

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[15] BT-Drs. 10/3903, 18.

[16] German Federal Supreme Court (Bundesgerichtshof, BGH), June 20, 2006, 168 Entscheidungen des Bundesgerichthof in Zivilsachen (BGHZ) 142 = 2006 GRUR 842 – *Demonstrationsschrank*.

[17] *Cf. e.g.* HÜTTERMANN/STORZ, 2006 Neue Juristische Wochenschrift (NJW) 3178-3180; GOEBEL (former Presiding Judge of the Senate for Utility Models of the Federal Patent Court) 2008 GRUR 301-312. – Defending the decision: KEUKENSCHRIJVER (judge at the Tenth Panel of the Federal Supreme Court), 2007 VPP-Rundbrief 82–89.

(1) a pulling assembly (54, 126) which pulls the sheet-like stock material into the machine;
(2) a motor (55) which powers the pulling assembly;
(3) a funnel-shaped forming assembly (52) pressing the stock material together and forming a strip of dunnage out of it;
(4) a cutting assembly (56) which cuts the continuous strip of dunnage;
(5) a motor (57) transferring rotational motion to the cutting assembly;
(6) a frame (36) within which the mentioned parts of the machine are fixed.

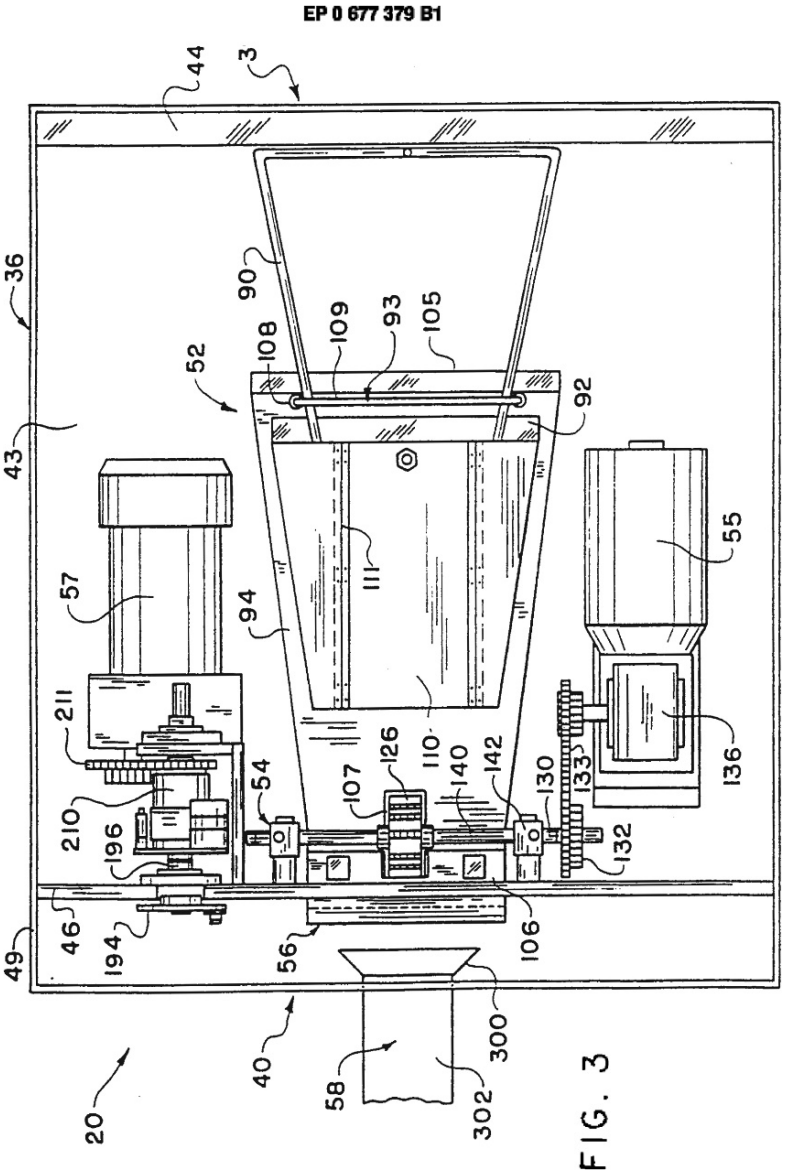

FIG. 3

The state of the art at the date of priority included a similar machine (US Patent 4,699,609) which was different from the subject-matter of the European patent in two aspects:

(1) the cutting assembly was powered not by a rotating motor, but by a solenoid with plunger and lever;
(2) the motors powering the pulling assembly and the cutting assembly were mounted outside the frame.

According to the description of patent EP 0 677 379, the changes to the known construction should solve the problem of providing the flexibility necessary to accommodate different packaging requirements. By giving a compact configuration to the machine, it should be made possible to position it in a horizontal, a vertical or an angular orientation.

The company of the inventors had applied for a European patent in 1991. This had been followed by an application for a German utility model. The utility model had been registered in 1994 but had been cancelled one year later on the request of a competitor. On appeal, the Senate for Utility Models of the Federal Patent Court had confirmed the cancellation.[18] It had argued, in agreement with the cancellation division of the Patent and Trademark Office, that the replacement of a solenoid by a rotating motor and the space-saving placement of the motors were part of the knowledge and ability of an average person skilled in the art. Even the low degree of inventiveness considered necessary for a utility model was stated to be lacking.

In 1998, the European Patent Office nonetheless granted the patent, and it upheld the patent also in opposition and appeals proceedings. The Board of Appeals argued that the state of the art gave no indication for the new construction. The opinion of the Federal Patent Court on the corresponding utility model was not mentioned in the written reasons of the decision.

The action on revocation of the patent at the Federal Patent Court was successful. The First Nullity Senate stated in 2003 that the two changes in the construction did not involve an inventive step, neither taken separately nor viewed in combination.[19] Both changes were within the knowledge and abilities of a person skilled in the art, and it could not be established that there was a synergistic or surprising effect in the combination of both measures.

On appeal, the Federal Supreme Court changed the decision of the Federal Patent Court.[20] The attacked patent was considered to be valid. The Federal Supreme Court stressed the advantages of the patented construction with regard to the flexible positioning of the machine and the absence of indications for this construction in the state of the art. In the text of the decision, there is no reference at all to the argument that the changes in the construction were within the knowledge and ability of a person skilled in the art.

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[18] June 11, 1997, 5 W (pat) 422/96.
[19] German Federal Patent Court (Bundespatentgericht), August 19, 2003, 1 Ni 7/02.
[20] German Federal Supreme Court (Bundesgerichtshof, BGH), February 19, 2008, X ZR 186/03, available at <www.bundesgerichtshof.de> (as of July 2008).

4. Procedural Questions in Nullity Proceedings

The example given to show the different assessments of inventiveness illustrates at the same time an important procedural rule: the Nullity Senates of the Federal Patent Court and the Federal Supreme Court are not bound by preceding decisions during the procedure of granting the patent. Even if the existence of an inventive step, with regard to a patented invention, has been examined and accepted in opposition and appeals proceedings, and even if the parties bring no new material during the revocation procedure, the courts in nullity proceedings have to consider and to decide all aspects of the question again. The Federal Supreme Court has emphasized this rule in a 1998 decision and only added the remark that a preceding decision of the European Patent Office in opposition proceedings on the same subject-matter should be taken into consideration as an expert opinion of substantial weight.[21]

Some other procedural rules are important for the assessment of the inventive step:

The control of the validity of the patent in nullity proceedings is restricted by the right of the parties to limit the subject-matter in litigation. If the plaintiff starts an action on revocation only against some of the claims of a patent, only these claims can be revoked. If the patent owner defends only some of the claims of the patent in litigation, only these claims can be upheld as valid. The claims which are attacked and not defended must be revoked without any examination of the court.

Furthermore, the subject-matter of the proceedings is restricted by the rule that only those grounds of nullity are examined on which the plaintiff bases the action. If the plaintiff attacks a patent on the ground of extension beyond the content of the application – Art. 138(1) lit. c EPC/Section 21(1) No.4, Section 22(1) German Patent Act –, the Nullity Senate will not consider if there is an inventive step justifying the grant of the patent. However, the different requirements of the patentability listed in Art. 52(1) EPC and Section 21 German Patent Act, namely novelty, inventive step and industrial application, are supposed to be one single ground of nullity. If the plaintiff asks for revocation because of lack of novelty, the ground for nullity he asserts is lack of patentability, and the court will therefore also examine if the documents to which the plaintiff refers to establish the lack of novelty will justify revocation for obviousness.

For the subject-matter restricted in this way, Section 87(1) German Patent Act determines:

> 'The Patent Court explores the facts of the case *ex officio*. It is not bound to the submissions of the parties and the evidence referred to by them.'

However, it is not the usual practice of the Nullity Senates of the Federal Patent Court to conduct own searches. In the great majority of cases, only the material brought by the parties is considered. The justification for proceeding this way is the

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[21] German Federal Supreme Court (Bundesgerichtshof, BGH), May 5, 1998, 1999 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 65, 67 – *Regenbecken*.

argument that the parties of a proceeding on revocation can be expected to do a complete search of the relevant facts.

What may arrive is that the court considers documents not mentioned by the parties but contained in the files of the examination or the opposition procedure of the patent office. This is of course an exceptional case; the Federal Supreme Court even had to expressly confirm that this practice is permitted under Section 87(1) Patent Act.[22]

An important consequence of the principle that the court explores the facts of the case *ex officio* is the rule that the parties may bring new material at any time of the first-instance proceedings. If the Nullity Senate summons a final oral hearing, the parties are not hindered in making new submissions one day before or even during the hearing. Because the court and the other party need time to consider the new submission, this may create the necessity of a second oral hearing. Here lies a weak point of the actual rules of procedure.[23]

It is not rare that the success of an action on revocation depends on whether or not certain facts can be ascertained. The plaintiff may have submitted that a prior use of the patented invention would lead to a lack of novelty or inventive step, and the patent owner may have contested such prior use. In such case, the court will take the evidence offered by the plaintiff or by both parties for the existence or non-existence of the alleged facts. Sometimes many witnesses will have to be heard with regard to events which may have taken place years or decades earlier. If the plaintiff does not succeed in convincing the court of the facts establishing the prior use, the patent cannot be revoked on this basis. It turns against the plaintiff if the facts on which he bases the action in revocation cannot be ascertained. In this sense, the plaintiff has the burden of proof (*materielle Beweislast*).

5. Inventive Step and Burden of Proof

It is tempting to use the concept of burden of proof in a wider understanding. Is the court justified in arguing: The plaintiff was not able to convince us that the inventive step was missing and therefore the patent will not be revoked? Is there a presumption of nonobviousness in favor of the patent owner?

In the deliberation of a Nullity Senate at the end of a nullity proceeding, when it has been elaborated what is the correct interpretation of the attacked patent claims and which documents or other material were at the disposal of a person skilled in the art at the date of priority of the patent, the decisive question normally remains whether on the basis of this material the subject-matter of the claims was obvious. This is a question of evaluation often difficult to answer. In the Nullity Senates of the Federal Patent Court, three technical judges and two legal judges have to find the correct answer, if necessary by majority vote of four against one or three against two. But if the opinions are divided, is it not the best solution to state that a lack of

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[22] German Federal Supreme Court (Bundesgerichtshof, BGH), 2004 Mitteilungen der deutschen Patentanwälte (Mitt.) 213 – *Gleitvorrichtung*.

[23] *Cf.* WINKLER, *supra* note 5, at 151-152 and 154.

the inventive step cannot be ascertained and that in consequence, the patent remains valid? There is even a nice Latin expression for this: the action on revocation is dismissed because of a '*non liquet.*'

In United States law, there is the express rule: 'A patent shall be presumed valid.'[24] In Germany, the Federal Supreme Court has stated, in more than one decision the following:

> Once a patent has been granted conforming to the rules, the legal position acquired by the patent owner can be taken away only if it can be established beyond doubt that this position has been obtained against the law.[25]

Other formulas of the same court especially refer to the question of nonobviousness:

> The subject-matter of claim 1 … is patentable because it cannot be determined that it was obvious, having regard to the state of the art (Art. 56 EPC).[26]
>
> Considering the result of the oral hearing, the Senate is not convinced that the subject-matter of claim 1 …, having regard to the state of the art, was obvious to a person skilled in the art and therefore did not involve an inventive step.[27]

All these wordings, it seems to me, document efforts to solve the question of validity or inventive step with a wide notion of burden of proof. To which strange results such efforts may lead is illustrated by the following formula, this time used by a Senate of the Federal Patent Court:

> If there are doubts that an invention, having regard to the state of the art, is obvious to a person skilled in the art, the invention evidently is not obvious with regard to the state of the art and is therefore considered to involve an inventive step.[28]

What is evident here is the danger of circular reasoning.

For a correct approach, ascertaining facts and deciding questions of law must be clearly separated. The facts submitted as the basis for an action on revocation or as the basis for a defense against such action must be proved. If the court, having taken the evidence offered, is not convinced that these facts are true, they are considered to be nonexistent. The party relying on these facts bears the burden of proof. But if a question of law has to be decided, it is not legitimate to argue: 'The plaintiff did

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[24] 35 U.S.C. Section 282, first sentence.

[25] German Federal Supreme Court (Bundesgerichtshof, BGH), 1991 Blatt für Patent-, Marken- und Zeichenwesen (Bl.f.PMZ)159, 161 – *Haftverband*; further decisions: 1991 GRUR 522, 523 – *Feuerschutzabschluss*; 1984 GRUR 339, 340 – *Überlappungsnaht*.

[26] German Federal Supreme Court (Bundesgerichtshof, BGH), 2007 GRUR 1055, 1058 – *Papiermaschinengewebe*.

[27] German Federal Supreme Court (Bundesgerichtshof, BGH), September 7, 2004, X ZR 186/00, 17 – *Tintenversorgungstank*, available at <www.bundesgerichtshof.de> (as of July 2008).

[28] German Federal Patent Court (Bundespatentgericht), 1997 GRUR 523 – *Faksimile-Vorrichtung*.

not convince the court that the law is in his favor.'[29] The question of law must be decided by the court – how difficult the problem may be.

The separation of facts and law in assessing nonobviousness is not easy. But it is the Tenth Senate of the Federal Supreme Court itself that has elaborated the difference between questions of law and questions of fact in many decisions. The focus of this jurisdiction is not the burden of proof, but the delimitation between the issues with regard to which an expert may be heard – questions of fact – and the problems reserved to the decision of the court – questions of law.[30] But many of these decisions concern the inventive step.

As questions of fact are treated by the Tenth Senate, *e.g.*:

- Which publications and which public use existed at the date of priority?[31]
- Which knowledge, abilities and experience were at the disposal of persons working on a certain technical field at this time?[32]

As questions of law have been categorized by the Tenth Senate:

- How are the claims of the patent to be interpreted?[33]
- Who can be assumed to be the average person skilled in the art in relation to the subject matter of a certain patent?[34]

And, the decisive question:

- Was the invention obvious to this person?[35]

With regard to this question, the Tenth Senate has stated:

> Whether the subject-matter of an invention is, having regard to the state of the art, obvious to a person skilled in the art, is not a question of fact but a question of law. … The assessment [of the inventive step] is therefore not the task of the expert, but as an act of evaluating cognition it lies within the responsibility of the court … In doing this the court has to consider all facts which are apt – directly or indirectly – to give indications as to the preconditions of finding the solution of the invention.[36]

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[29] A limited exception to this rule is the application of the law of a foreign country, *cf.* Section 293 German Code of Civil Procedure and German Federal Supreme Court (Bundesgerichtshof, BGH), 2007 Monatsschrift für Deutsches Recht (MDR) 487.

[30] *Cf.* MEIER-BECK, 'Der gerichtliche Sachverständige im Patentprozess', 2005 Festschrift 50 Jahre VPP, 356-371.

[31] *Cf.* German Federal Supreme Court (Bundesgerichtshof, BGH), 2004 GRUR 411, 412 –*Diabehältnis*.

[32] German Federal Supreme Court (Bundesgerichtshof, BGH), 2007 GRUR 410, 413 – *Kettenradanordnung*; 2006 GRUR 131, 133 – *Seitenspiegel*.

[33] German Federal Supreme Court (Bundesgerichtshof, BGH), 2007 GRUR 410, 412 – *Kettenradanordnung*; 2006 GRUR 131, 133 – *Seitenspiegel*.

[34] *Cf.* German Federal Supreme Court (Bundesgerichtshof, BGH), 2001 GRUR 770, 773 – *Kabeldurchführung II* – and MEIER-BECK, *supra* note 30, at 362.

[35] German Federal Supreme Court (Bundesgerichtshof, BGH), 2004 GRUR 411, 413 – *Diabehältnis*.

[36] German Federal Supreme Court (Bundesgerichtshof, BGH), 2006 GRUR 663, 665 – *Vorausbezahlte Telefongespräche*.

Taking account of this separation of facts and law, the following formula for the evaluation of nonobviousness in nullity proceedings seems adequate:

> Once a patent has been granted conforming to the rules, it can be revoked only if the facts on which the action on revocation is based are established to the full conviction of the court and if the legal evaluation of these facts leads to the result that the conditions for the ground of revocation alleged by the plaintiff are fulfilled.

6. The Appeals Proceeding at the Federal Supreme Court

When considering an appeal in nullity matters, the Federal Supreme Court is not restricted to the legal aspects of the case. The Tenth Senate has the power to review all facts; it has to accept new submissions of the parties, with regard to facts and law. The parties may introduce new motions and they may ask for the hearing of new witnesses. The appeal in nullity matters leads to a review of facts and of law (*Berufung*). Unlike all other civil proceedings at the Federal Supreme Court, it is not a mere control of law (*Revision*).

The procedural rules to be observed during the first-instance proceeding are, in principle, also applicable to the appeals proceeding.[37] There is one important exception: the Federal Supreme Court is authorized to reject late submissions concerning new facts and new evidence if these submissions are presented the first time at the oral hearing and are not motivated by submissions of the other party.[38] The German Civil Procedure Code contains, since the reform of 2001, in Section 531 far-reaching restrictions to the presentation of new means of attack and defense in appeals proceedings; this provision, however, is considered to be inapplicable in nullity proceedings; this may be justified with the principle of exploration *ex officio* in these proceedings and because of the special rules on late submissions set forth in Section 117 German Patent Act.[39]

Although the procedural rules applicable to the appeals proceeding are nearly identical to those for the first instance, the course of the proceeding in practice is very different. The Tenth Senate is not endowed with technical judges. If, as in most cases, the decisive issue is the inventive step, an outside expert regularly is appointed to illuminate the facts connected with this issue. As such experts, the court chooses 'with priority the directors of institutes of scientific and technical universities.'[40] These eminent scholars will often have difficulties in assessing the knowledge and ability of an average person skilled in the art at a time years ago. But this general assessment is not the task of the expert. The Tenth Senate usually asks him or her to answer a long catalogue of detailed questions referring to all kind of facts which might be relevant. The written expertise is given to the parties and discussed with them, normally in presence of the expert, at the oral hearing. The final evaluation of the inventive step is reserved to the court.

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[37] *Supra* under 4.
[38] German Patent Act Section 117 I, II.
[39] *Cf.* BUSSE/KEUKENSCHRIJVER, Patentgesetz, Section 117 note 1 (6th ed. 2003).
[40] KEUKENSCHRIJVER, Patentnichtigkeitsverfahren 133 (2nd ed. 2005).

The appointment of an independent outside expert, not often easily found, and the detailed and careful scrutinizing of the cases by the Tenth Senate lead to a rather high duration of the proceedings. The average length of a second-instance nullity proceeding has risen to about four years.[41] It is growing continuously since there are more incoming cases every year than finished proceedings. In 2007, for example, 62 appeals in patent nullity matters were filed, but only 49 second-instance nullity proceedings were ended.[42] The average length of the first-instance nullity proceedings at the Federal Patent Court has also grown during the last years: 21,7 months in 2007 compared to 19,0 months in 2005.[43]

The Tenth Senate itself has submitted proposals to shorten the appeals proceedings by changing the applicable procedural law. The German Federal Ministry of Justice has entered into a discussion with the interested circles on these and other proposals with the same aim.

A clear solution would be to restrict the possibility to invoke the Federal Supreme Court in Nullity Proceedings to a control of law, a *Revision* instead of a *Berufung*. This would correspond to the usual role of a country's highest civil court. It would disburden the Tenth Senate from hearing witnesses and from appointing experts to explore controversial facts of the case. The Senate would keep the power to revise the application of law – and since, as we have seen, the assessment of the inventive step is considered to be a question of law, the possibility would remain that standards and sub-rules of the Federal Patent Court regarding this assessment are questioned by the Federal Supreme Court.[44] If a different appreciation of legal rules would require a new exploration of facts, the Tenth Senate would refer the case back to the Federal Patent Court.[45]

The organizations of lawyers and patent attorneys, however, are reluctant to accept such restriction of the role of the Federal Supreme Court. They appreciate the actual practice of the Tenth Senate to deeply explore facts and law and they like the possibility to present new facts and new motions at the highest civil court. The patent attorneys are interested in keeping the privilege to plead in nullity proceedings at the Tenth Senate – a privilege justified by the focus of these cases on technical points.[46]

Therefore, compromise solutions are discussed which would leave the parties with some restricted possibilities to submit additional facts during the appeals pro-

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[41] WINKLER, *supra* note 5, at 149. – In the case described *supra* under 3.3, the Federal Supreme Court decided 4 ½ years after the decision of the Federal Patent Court.

[42] German Federal Patent Court, Annual Report (2007), at 154, available at <www.bpatg.de> (as of July 2008).

[43] *Id.*, at 151; Annual Report (2005), at 125.

[44] As the Court did, *e.g.*, in the recent decision *Papiermaschinengewebe* – 2007 GRUR 1055 – where it stated that the assessment of nonobviousness must be based on the sum of the aspects of the patented solution in their technical connection and not on the isolated consideration of partial problems.

[45] *Cf.* WINKLER, *supra* note 5, at 150, 154.

[46] German Patent Act Section 111 IV.

ceeding – *e.g.* a document or a prior use which was unknown to the party during the first-instance proceeding.

There is a problem connected with all of these solutions. The Nullity Senates of the Federal Patent Court can rely on the knowledge and experience of their Technical Judges when determining the state of the art at the date of priority and the knowledge and ability of a person skilled in the art at that date. For a Technical Judge with a university degree and years of practical experience in the technical field of the patent, this task is, in most cases, not too difficult.[47] The Tenth Senate of the Federal Supreme Court, not equipped with technical judges, needs much more facts for the full and deep control of nonobviousness which it realizes up to now.

To solve this problem, it is proposed to oblige the Nullity Senates of the Federal Patent Court to extend and to intensify their proceedings, especially to disclose a provisional opinion on the case to the parties some time before the oral hearing and to document, in the written judgment, the facts connected with the grounds of revocation, including the state of the art at the time of priority.[48] In my opinion, some steps could be taken in this direction. But a power of discretion of the Nullity Senates with regard to such additional measures should remain. The situation would not be ameliorated if all nullity proceedings at the Federal Patent Court were lengthened in order to shorten the smaller number of proceedings at the Federal Supreme Court. Even without a change in the procedural law applicable to the Federal Patent Court, more facts will be brought and all facts will be discussed more intensively during the first-instance nullity proceedings as soon as the right of the parties to bring new facts at the second instance will be restricted. In any case, a good measure against overly long first-instance nullity proceedings would be to give the Nullity Senates of the Federal Patent Court the power to set deadlines for the submission of new facts.[49]

In this thorny discussion, it is refreshing to hear some clear opinions from the United Kingdom. *Sir Robin Jacob*, renowned British patent judge, states in his article about 'The Perfect Patent Court':[50]

> … patent law itself draws some none too precise lines – for instance as to what is obvious.
>
> That is why in the UK the House of Lords has said that the trial judge's view on this should not be overruled unless he has made a clear error, *Biogen v Medeva* [1997] RPC 1. You have to give the decision to someone – and although it is possible that another may take a different view, it is not sensible to have appeals purely on that basis – the first instance judge has a 'margin of appreciation' to use a phrase from the field of Human Rights Law.

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[47] See VAN RADEN, The Expert On The Bench: Technically Qualified Judges In Nullity Proceedings, 2001 Mitteilungen der deutschen Patentanwälte (Mitt.) 393 – 396.

[48] *Cf.* TILMANN 2008 GRUR 312. – Criticizing these proposals WINKLER, *supra* note 5, at 153.

[49] WINKLER, *id.*, at 152, 154.

[50] JACOB, The Perfect Patent Court, in: KUR/LUGINBÜHL/WAAGE (eds), Festschrift für Stauder und Kolle, 313, 314, text and note 5 (2005). The House of Lords has confirmed the cited opinion in *Buchanan v Alba* [2004] UKHL 5, no. 31: [As to the question whether an invention is obvious] 'an appellate tribunal should not substitute its opinion for that of the judge of first instance unless it considers that he has made some error of principle.'

And in the recent House of Lords decision *Conor v. Angiotech*, *Lord Hoffmann's* opinion contains the following remarkable sentences:[51]

> Sometimes one is dealing with questions of degree over which judges may legetimately differ. Obviousness is often in this category. But when the question is one of principle, it is desirable that so far as possible there should be uniformity in the way the national courts and the EPO interpret the European Patent Convention …

As we see, the German conviction of the necessity of a full and intensive reassessment of the inventive step at the highest civil court is not the only possible view. Restriction to questions of principle is another possibility.

The Supreme Court of the United States, on the other hand, apparently does not share the restraint of the House of Lords on the control of nonobviousness. It did not hesitate, in the recent decision *KSR v. Teleflex*,[52] to analyze in depth the inventive step with regard to a patent on a mechanism combining an electronic sensor with an adjustable automobile pedal. One might consider as the correction of an error of principle that the Supreme Court questioned the rule that the combination of prior art references can be obvious only if some 'teaching, suggestion or motivation' can be found ('TSM test' of the U.S. Court of Appeals for the Federal Circuit) and that it stressed the general creativity of a person having ordinary skills in the art. But the Court, in addition, looked at secondary considerations not different from those known in German nullity proceedings: subject-matter of a claim as a predictable variation of known elements, synergy of a combination, and the danger of *ex post* reasoning. It decided the question of inventive step on the basis of its own evaluation of all circumstances of the case.[53]

My personal preference for the future role of the German Federal Supreme Court in nullity proceedings would be the clear solution of a mere control of law (*Revision*). This would leave to the Tenth Senate the option of a stronger self-restraint in the British manner, but also, since the inventive step is a question of law, the possibility to continue a deep control as it has been practiced by the Supreme Court of the United States in the *KSR* decision. A good intermediary line would be to concentrate the control of nonobviousness on the question whether the sub-rules and the secondary considerations applied by the first-instance court are fair, adequate and reliable and to abstain from carrying out the final evaluation of all circumstances at the second instance. The role of the patent attorneys at the Federal Supreme Court should not be changed. If the Supreme Court is to proceed in most cases without external experts in future, it will need the knowledge of the patent attorneys even more than in the actual situation.

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[51] [2008] UKHL 49, no. 3.

[52] 2007 Mitteilungen der deutschen Patentanwälte (Mitt.) 325 – 328, with a note of SWANSSON.

[53] It is questionable if the flexible approach of the *KSR* decision is a contribution to legal certainly and predictability, *cf.* SLOPEK, Die Behandlung von Trivialpatenten in den USA: US Supreme Court in KSR International Co. v. Teleflex Inc., 2008 GRUR Int. 379.

7. Conclusions

The questions posed at the outset of this article may be answered as follows:

- There is some evidence for different standards to assess nonobviousness in the European Patent Office on one hand and the German Patent Office and Courts on the other hand. One factor seems to be that the knowledge and ability of the person skilled in the art plays a greater role in the German context. However, a recent decision of the German Federal Supreme Court can be interpreted as taking over the position of the European Patent Office in this respect. Another factor probably has been the two-steps approach of German law to nonobviousness: a low degree of inventive step has been considered as sufficient for a utility model and a higher degree as necessary for a patent. With another new decision of the Federal Supreme Court, this differentiation now seems to be obsolete. Both decisions contribute to more unity, but also to a lowering of the level of inventiveness.
- Nonobviousness is a question of legal evaluation of facts, not a question which can be solved just by proving facts. Therefore, it is not correct to state that in nullity proceedings the plaintiff has to prove the obviousness or that the subject-matter of a granted patent is presumed to be nonobvious. Legal evaluation and the ascertainment of the underlying facts must be clearly separated.
- The long duration of German second-instance nullity proceedings call for a restriction of the control of the Federal Supreme Court in these matters. The actual full reconsideration of the case even including new facts should be replaced, in principle, by a mere control of law. Such a reform would not deprive the Tenth Senate of its leading role in setting the standards and formulating the 'sub-rules' applicable to the assessment of nonobviousness.

Tax Strategy Patents – a Tax Lawyer's View

Wolfgang Schön

1. Disclosure and Protection of Tax Strategies

Strategic tax planning in the U. S. is currently under attack from different sides. Both under tax law and under patent law there is a growing number of disincentives which influence the behavior of tax advisors and their clients. These persons are more and more under pressure to refrain from offering and using pre-ordained tax strategies which would otherwise reduce the tax burden of the taxpayer. Although the disincentives formed by tax and patent law are quite different as to their scope, their regulatory techniques and their teleology, their cumulative effect is quite substantial and in some cases even contradictory. Therefore, in recent years, U. S. tax advisors and officials have been forced to become acquainted with patent legislation while patent examiners in the U. S. Patent and Trademark Office (PTO) have to scrutinize the merits of tax schemes. Against this background it seems to be useful take a bird's eye view from Europe on the current practice and debate in the United States:

1.1 Disclosure of Tax Strategies – IRS Practice

The first part concerns the Internal Revenue Service's battle against tax shelters, in particular the growing array of rules on tax shelter disclosure.[1] Unlike legitimate tax planning, the notion of a tax shelter refers to an activity which does not fall within the ordinary business operations of the taxpayer but which is undertaken with the sole purpose to minimize the tax burden.[2] In most of these cases, the tax shelter is designed to produce a tax loss which can be set off against a taxable profit which arises in the regular business of the taxpayer. In the context of substantial tax law, the tax authorities try to fight the successful employment of a tax shelter both by changing the relevant tax legislation *pro futuro* and by using overarching legal concepts, *e.g.* the 'substance over form' doctrine which can result in a retrospective re-characterisation of a legal instrument and thus take away the tax benefit intended by the user of the tax shelter *ex tunc*. In the context of procedural tax law, taxpayers and their advisors are increasingly subject to tax shelter disclosure rules which are meant to inform the tax authorities as early as possible about the marketing and the use of tax shelters and which might deter advisors and clients from offering and

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[1] For a comprehensive overview *see* KORB, Shelters, Schemes and Abusive Transactions: Why Today's Thoughtful U. S. Tax Advisors Should Tell Their Clients to 'Just Say No', in: SCHÖN (ed.), Tax and Corporate Governance, 289 *et seq.* (2008).

[2] BANKMAN, The New Market in Corporate Tax Shelters, 83 Tax Notes 1775 *et seq*. (1999).

using such tools.[3] Mandatory disclosure is used as an instrument to reduce the risk of tax authorities either to never find out about the use of a tax shelter at all or to deal with tax shelters at a much later stage when the opportunity for effective legislation is gone. Moreover, the use of tax shelter can bring about civil penalties which shall increase the downside risk of a tax strategy which is not accepted by the IRS and by the courts.[4]

1.2 Patents on Tax Strategies – The State of the Art

Public disclosure of tax shelters can lead to widespread information about a tax scheme in the market for tax advice. Against this background it is understandable that tax advisors who have invested human capital in the design of a given tax strategy seek protection under the U. S. patent system.[5] Unlike the European and the German Patent legislation, the U. S. patent law grants protection not only for 'technical' inventions but also to other creations of the human mind.[6] Following the Court of the Federal Circuit's judgment in *State Street*, even mere business methods may fall under § 101 U. S. Code.[7] Following these rules, the PTO has created a patent class for tax patents. It has so far (April 2008) registered 65 tax strategy patents and is currently examining 110 further applications.[8] Although a large part of these patents concerns tax software applications and similar algorithms, some of them concern legal strategies which are designed to reap certain tax benefits.[9] Patents for tax strategies have been granted in a variety of areas, including the use of financial products, charitable giving, estate and gift tax, pension plans, tax-deferred real estate exchanges, and deferred compensation. In the famous SOGRAT litigation,

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[3] KORB *supra* note 1, 311 *et seq.*; *see* SHAVIRO, Disclosure and Civil Penalty Rules in the U. S. Legal Response to Corporate Tax Shelters, in: SCHÖN (ed.), Tax and Corporate Governance 229 244 *et seq.* (2008).

[4] For the economic rationale of these penalties *see* SHAVIRO *supra* note 3, 239 *et seq.* .

[5] KING, Only in America: Tax Patents and the New Sale of Indulgences, 60 The Tax Lawyer 761, 762 (2007); for an overview of the development *see*: JOINT COMMITTEE ON TAXATION, Background and Issues Relating to the Patenting of Tax Advice, Scheduled for a Public Hearing Before the Subcommittee on Select Revenue Measures of the House Committee On Ways and Means, July 13, 2006, part IV.

[6] For a comparison between the U. S. approach and the European approach *see* STIEGER, Patentierbarkeit von Geschäftsmethoden – Paradigmenwechsel im Patentrecht, in: BAUDENBACHER/SIMON, Neueste Entwicklungen im europäischen und internationalen Immaterialgüterrecht, 197 *et seq.* (2002).

[7] *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.* 149 F.3d 1368, 1372 n.2 (Fed. Cir. 1998); for current criticism *see* DEVINSKY/FUISZ/SYKES, Whose Tax Law is it?, Legal Times, October 16, 2006.

[8] The procedure is described by TOUPIN, General Counsel U. S. PTO, Statement for the Hearing on Issues Relating to the Patenting of Tax Advice Before the Subcommittee on Select Revenue Measures, Committee on Ways and Means, July 13, 2006; for a (somewhat older) full list *see* Tax Strategy Patents, Applications Available, Tax Notes, April 23, 2007, 327 *et seq.;* a detailed description is given by the JOINT COMMITTEE ON TAXATION, *supra* note 5, part III.

[9] TANDON, Increased Awareness of Tax Patent Risks Needed, Say Practitioners, Tax Notes, April 23, 2007, 304 *et seq.*; APRILL, Responding to Tax Strategy Patents, Legal Studies Paper No. 2007-26, April 2007, Loyola Law School Los Angeles, 3.

the owner of a tax patent on 'stock option grantor retained annuity trusts' sued the CEO of *Aetna Inc.*, a large insurance company, for infringement of such a patent. Although this case was settled without judgment, enforcement of tax patents is widely perceived by tax practitioners as a major obstacle to free-floating tax planning.[10]

While this recent practice of the PTO is mostly accepted by patent lawyers as a logical extension of the 'business method' judicature,[11] it is widely criticized by tax lawyers in the United States. Most fervently, the American Institute of Chartered Public Accountants (AICPA), speaking for a large group of tax advisors, contests the patentability of tax business strategies.[12] They have asked the courts to reject the assumption that the general availability of patent protection for business methods can be extended to tax schemes.[13] Experts and lobby groups press lawmakers to consider an outright ban on tax patents or to limit the liability for the infringement of such patents substantially.[14] Moreover, two Senate bills[15] and one House bill[16] have been introduced in order to provide for an exemption of tax strategies from the protection under U. S. patent law. The most recent bill[17] reads:

> Section 101 of title 35, United States Code, is amended – (…)
>
> (1) Unpatentable Subject Matter. – A patent may not be obtained for a tax planning invention.
>
> (2) Definitions. – For purposes of paragraph (1) –
>
> (A) the term 'tax planning invention' means a plan, a strategy, technique, scheme, process, or system that is designed to reduce, minimize, avoid, or defer, or has, when implemented, the effect of reducing, minimizing, avoiding, or deferring, a taxpayer's tax liability or is designed to facilitate compliance with tax laws, but does not include tax preparation software and other tools or systems used solely to prepare tax or information returns.

In the meantime, the U. S. tax authorities have started to consider action against patented tax strategies on another frontier. New regulations are envisaged which shall force the owners of 'tax patents' and their clients to report patented trans-

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[10] TANDON *id*., at 305; STAMPER, Tax Strategy Patents: A Problem Without a Solution?, Tax Notes, April 23, 2007, 300 *et seq*.; CATHEY/GODFREY/RANSOME, Tax Patents Considered, 203 Journal of Accountancy 40 *et seq.* (2007).

[11] BURK/MCDONNELL, Patents, Tax Shelters, and the Firm, Legal Studies Research Paper No. 07-05, University of Minnesota Law School, 1 (2006).

[12] AICPA (HOOPS, Chair, AICPA Tax Executive Committee), Letter to Sens. Baucus, Grassley, Rangel and McCrery of February 28, 2007.

[13] AICPA (NIX/SCHNEIDER), *In re Bernard L. Bilski and Rand A. Warsaw* (U. S. Court of Appeals for the Federal Circuit, Appeal No. 2007 – 1130) Brief for *Amicus Curiae* AICPA of April 7, 2008.

[14] For an overview on legislative options *see* APRILL *supra* note 9, at 20 *et seq*.

[15] The bill for a 'Stop Tax Haven Abuse Act' has been introduced by Sens. LEVIN, COLEMAN and OBAMA (D-Ill); available at <http://levin.senate.gov/newsroom/release.cfm?id=269516> (as of May 2008); for the second bill *see* below note 17.

[16] 110th Congress 1st Session, H. R. 1908, Union Calendar No. 200, Report No. 110-314.

[17] 110th Congress 1st Session s.2369.

actions under the disclosure regime on tax shelters.[18] According to this proposal, the granting of a patent would immediately lead to increased scrutiny by the tax authorities. This has been criticized by IP lawyers who try to defend the freedom of patent holders under the tradition of U. S. law and by tax lawyers who fear that legitimate tax planning might be impeded under the proposed regulations. Moreover, the disclosure of a patent as such might be sufficient in order to inform the authorities and the general public about the concerned patents.[19]

From a patent lawyer's perspective, the question of the patentability of a tax strategy brings about several questions:[20] Does the protection of a tax strategy really promote 'useful arts' within the meaning of Art. I § 8 cl.8 of the U. S. Constitution?[21] Does the missing 'technological' character of a tax scheme supply an argument against patentability?[22] Is it necessary for protection that the tax scheme is somehow connected to the use of a computer or another 'machine'?[23] If this is the case, does the trivial use of a PC or another device for the administration of a tax scheme run foul of the requirement of non-obviousness under § 103 U. S. Code?[24] Will other tax practitioners be able to rely on the 'first inventor defense' if they have used a certain tax minimizing technique before (within the framework of their confidential relationship with the client)?[25]

These questions can be answered much better by *Joseph Straus* to whom this article is devoted than by the author of this contribution. Therefore, the following remarks concentrate on the tax side of the debate, *i.e.* on the issue of whether it is good tax policy to accept the patentability of tax strategies.

2. What is a Tax Strategy – A Matter of Law or a Matter of Fact?

One of the fundamental arguments against the patentability of tax schemes concerns the nature of such a strategy in the first place. The application of the relevant tax law to a given situation – it is said[26] – cannot be restricted to the owner of a patent or his/her licensees. Tax legislation is not a subject matter for a monopoly; the tax authorities and the courts have to apply tax law equally for every taxpayer. Any tax strat-

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[18] CODER, IRS Reg Hearing on Tax Patents Highlights Divide, Tax Notes, February 25, 2008, 894 *et seq.*

[19] *See* the hearing report by CODER *supra* note 18.

[20] A good overview is presented by JOINT COMMITTEE ON TAXATION, *supra* note 5, part II.B.

[21] This is rejected by DEVINSKY/FUISZ/SYKES *supra* note 7, by AICPA *supra* note 13, 19 *et seq.* and by SCHWARTZ, The Patent Office Meets the Poison Pill: Why Legal Methods Cannot be Patented, 20 Harvard Journal of Law & Technology 333, 358 *et seq.* (2007).

[22] KING, *supra* note 5, at 768.

[23] AICPA, *supra* note 13, 11 *et seq*.

[24] *See In Re Stephen W. Comeisky*, 499 F.3d 1365 (Fed. Cir. Sept. 20 2007); HAMILTON, Strengthening the Case Against Tax Patents, Tax Notes, October 15, 2007, 269.

[25] APRILL, *supra* note 9, at 18.

[26] AICPA, *supra* note 13; APRILL, *supra* note 9, at 7; NIX/SCHNEIDER, *supra* note 13, at 7 *et seq*.; *see* the statement by DRAPKIN, Cochair of the ABA Section of Taxation's Tax Strategy Patent Task Force as quoted by CODER, *supra* note 18, 895; *see* further the statement by DESMOND, Treasury Tax Legislative Counsel, as quoted by STAMPER *supra* note 10, at 300.

egy concerns the law as such which belongs to the public domain. Moreover, even specific arguments which refer to the construction and interpretation of a tax provision cannot be 'owned' by individual taxpayers while other persons would be prevented from using these arguments before the tax authorities and in court.

This does not only refer to the formal characterisation of the relevant subject matter. It also concerns the material requirement that all taxpayers have to be treated equally.[27] As taxation leads to mandatory payments and offers no direct consideration for the taxpayer, the principle of equal treatment is fundamental for the substantive legitimacy of taxation. Private ownership of a specific tax treatment would run foul of this major principle. Therefore, most tax lawyers plead for a solution which prevents the monopolization of tax strategies under patent law.

Though this argument sounds convincing, it does not give the full picture. While it goes without saying that tax provisions and their interpretation have to be handled equally for all taxpayers, a particular tax strategy as such does not deal with the abstract rules of law and their interpretation in the first place. A typical tax strategy concerns a certain arrangement of economic activities and legal instruments (under private law) which is designed to fulfil the requirements or to stay out of the scope of certain tax provisions. Thus, the main thrust of a tax scheme is not the law as such but the creation of a factual situation which is meant to achieve a certain treatment under tax law. In this sense, a tax strategy is similar to a technical arrangement which is designed to comply with legal rules on car safety or public standards of environment protection.[28] Nobody will assume that legislation on cars or the environment can be monopolized as such but it is self-evident that a non-obvious technical solution which fulfils the requirements of these rules can be patented. In so far, the tax strategy as such is a 'matter of fact' which does not prevent other taxpayers from relying on the law as it stands in an unrestricted manner.

Therefore, the assumption that the granting of tax patents to certain individuals would prevent other taxpayers from the capacity to comply with their legal obligations[29] does not have any foundation because the patented tax strategy does not refer to a 'method of complying with tax law' as such but to a particular – innovative - factual arrangement which is meant to bring about certain additional tax benefits. Therefore, the case against tax patents has to be founded on other – more specific – arguments on tax policy.

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[27] CATHEY/GODFREY/RANSOME, *supra* note 10, at 42; NIX/SCHNEIDER, *supra* note 13, at 10 *et seq.*

[28] This point has been made by GRUNER, in: Hearing on Issues Relating to the Patenting of Tax Advice in the House Ways and Means Committee, July 13, 2006, Serial 109-77, 109th Congress, 22 (2006); for the opposite view *see* KING *supra* note 5, at 774.

[29] APRILL, *supra* note 9, at 7; KING, *supra* note 5, at 774 *et seq.*; NIX/SCHNEIDER, *supra* note 13, at 22; see the balanced view taken by the JOINT COMMITTEE ON TAXATION, *supra* note 5, IV, 25 *et seq.* .

3. Tax Strategies and Tax Shelters

3.1 The Basic Distinction

Against this background we have to ask whether the factual arrangements which form the basis of any tax strategy deserve protection with respect to the fundamental assumptions of tax law and tax policy. It is hard to answer this question in a broad-brushed manner. From a tax lawyer's perspective, it seems advisable to distinguish between two different kinds of tax strategies which receive quite different treatment under tax law from the outset:[30]

On the one hand there is the possibility that a taxpayer simply wants to arrange his or her business activity in a tax-efficient manner. This is what is called 'legitimate tax planning'.[31] The business purpose of the activity as such remains unaffected but the tax framework is improved. This might relate to the choice of legal form (partnership or corporation), to the choice between debt and equity or the formation of a group of corporations instead of a single large company. As the different tax treatment of these arrangements is laid down explicitly in the law and is thus fully accepted by the courts, the tax authorities do not fight this behavior at all. It is protected under Judge *Learned Hand*'s proverbial saying that everyone is entitled to arrange his or her affairs in order to pay less tax.[32]

On the other hand there are arrangements which have no real connection to the business activity of a taxpayer. Although they include valid legal instruments (we are not talking about 'shams' here) they are meant to minimize the tax burden by creating additional – artificial – constructions which would not have been established but for tax reasons. This is what is called a 'tax shelter'.[33] Therefore, the main difference between 'tax planning' and a 'tax shelter' refers to the fundamental business purpose of a transaction versus the artificial tax-driven character of a transaction. It also refers to the fundamental acceptance of a strategy by the tax law which is given for legitimate tax planning but which is not granted for abusive tax shelters.

What does this mean for patent protection? If a patent is granted for a tax strategy, this confers a monopoly right to a certain tax advisor and his clients or any licensee which is willing to pay a substantial fee to him to arrange the affairs of a taxpayer in a certain manner to reduce the tax burden. In the case of legitimate or illegitimate tax planning this would have a double-sided effect: Tax advisors would face an incentive to create new methods of legitimate tax planning or of illegitimate tax shelters in order to draw an extra profit out of the exploitation of a

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[30] This distinction is rarely recognized by patent lawyers discussing the merits of tax strategy patents but not overlooked by tax lawyers: *see* EVERSON, Testimony Before the Subcommittee on Select Revenue Measures of the House Committee on Ways and Means, July 13, 2006.

[31] As to the obligation of corporate management to minimize the tax burden of a business *see* SCHÖN, Tax and Corporate Governance – A Legal Approach, in: SCHÖN (ed.), Tax and Corporate Governance 30, 46 *et seq.* (2008).

[32] *Helvering v. Gregory*, 69 F. 2d 809, 810 (2d Cir. 1934), *aff'd* 293 U. S. 465 (1935).

[33] BANKMAN, *supra* note 2.

patent; on the other hand, taxpayers not willing to pay the license fee will be prevented from a business arrangement which would make perfect sense under the relevant tax legislation and also from the use of a tax shelter – the last case being welcomed by the tax authorities. We have to assess the merits of these two cases differently.

3.2 The Case against Patents for Legitimate Tax Planning

As legitimate tax planning is a fundamental right of every taxpayer, any monopolisation of tax planning in the hands of specific tax advisors and their clients seems to run foul of basic assumptions of tax policy. There are two reasons for this. First of all, legitimate tax planning refers to an activity which has an actual business purpose and is not solely aimed at creating a tax advantage. Therefore, the benefit derived from legitimate tax planning exceeds the simple tax benefit (the minimization of tax) because it supports the economic activity of the taxpayer in general. This extra benefit for the taxpayer and society at large should not be dismantled by preventing the taxpayer from embarking upon a certain legitimate tax strategy in the first place. Moreover, many provisions of the tax code have been designed by the legislator as a tax expenditure which is meant to benefit a broad range of taxpayers and to induce them to start particular economic activities.[34] This should not be endangered by any 'privatization' of a tax benefit under patent law. Otherwise, the patent fee would supplement a higher tax burden which the citizens are not legally bound to pay to the government.[35]

Nevertheless, we have to face the counterargument of whether patent protection should be granted to legitimate tax strategies in order to increase the incentives for tax advisors to 'invent' such arrangements.[36] This seems to be not the case. First of all, we have witnessed that in the past such tax strategies have flourished all over the place without any legal protection under patent law.[37] The specific know-how of creative tax advisors and a certain first-mover advantage seem to have been sufficient in order to supply the business world with tax strategies. Therefore, we do not confirm that there might be an undersupply of tax planning at all.

To the contrary, the introduction of tax patents has already led to an additional layer of costly compliance work which ordinary tax advisors face once tax patents start creeping up all over the place. These costs would presumably exceed the social benefit of additional tax planning stifled by the prospect of tax patents.[38] In particular, the litigation risk – infringement claims could be instituted both against the tax

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[34] AICPA, *supra* note 12; AICPA, *supra* note 13, at 5; CATHEY/GODFREY/RANSOME *supra* note 10, at 42.

[35] KING, *supra* note 5, at 776.

[36] BURK/MCDONNELL, *supra* note 11, at 10 *et seq.* .

[37] APRILL, *supra* note 9, at 5 *et seq.*; BEALE, Tax Shelters and the Tax Minimization Norm: How Does the Patenting of Tax Advice Transform the (Global) Playing Field, Research Paper No. 07-46, Wayne State University Law School, 2008, II; CATHEY/GODFREY/RANSOME, *supra* note 10, at 42; AICPA, *supra* note 13, at 20 *et seq.*; SCHWARTZ, *supra* note 21, at 369 *et seq.* .

[38] KING, *supra* note 5, at 771; TANDON, *supra* note 9, 305; AICPA, *supra* note 13, at 11.

advisor and the tax payer[39] – might reach a prohibitive size.[40] For professionals in the tax world who have to live with an ever-moving target of ever-increasing complexity, the additional necessity to comply with patent law every time they give advice is simply not acceptable.

Moreover, it is hard to see the 'public good' arising for society at large out of the protection of innovative tax minimization strategies. The economic effect of legitimate tax planning consists in the minimization of the tax burden by a given taxpayer. This effect seems not to deserve the same level of protection as any other new technological or business outcome as it simply shifts financial resources from the private sector to the public sector without creating any additional value for the society.[41]

In so far, there seems to be a difference when we compare tax strategies to other 'business methods' which try to improve the efficient allocation of resources in the market. Even the sophisticated design of a modern financial instrument can be regarded as a useful contribution of the creator to an improved management of financial risks and thus to the lowering of capital cost for capital-seeking firms.[42] The same cannot be said of a tax minimization strategy.[43] One should bear in mind that while it is perfectly legitimate for a taxpayer to use such a pattern there is no further reaching rationale for the creation of monopolies so far. It may be difficult to draw the fine line between unprotected tax strategy patents and protected patents on business methods which include some tax elements (tax calculation programs, bookkeeping software, etc.)[44] but it is necessary to make clear that the patenting of business methods as such cannot be directly prejudicial for tax patents. After all, most tax strategies become outdated within a few years after their creation so there would be nothing useful left for the public domain once the tax patent runs out after 20 years.[45]

3.3 The Case against Patents for Tax Shelters

Against this background, it seems to be easier to accept the patentability of a tax shelter than to accept patent protection for legitimate tax planning. The use of tax shelters is socially not accepted and therefore – from the standpoint of tax policy – any restriction of tax shelter activities will be welcomed. Therefore, the limited use which can be made of a tax shelter under patent law fits in with the public interest to curb the use of such shelters.

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[39] GRUNER, Testimony before the Subcommittee on Select Revenue Measures of the House Committee on Ways and Means, July 13, 2006, part II.C.

[40] APRILL, *supra* note 9, at 15; CATHEY/GODFREY/RANSOME, *supra* note 10, at 44; NORRIS, Patent law is getting tax crazy, International Herald Tribune of October 19, 2006, available at <www.iht.com/articles/2006/10/19/business/norris20.php> (as of May 2008).

[41] JOINT COMMITTEE ON TAXATION, *supra* note 5, part IV, 25.

[42] *See* BURK/MCDONNELL, *supra* note 11, at 4 *et seq.* .

[43] DEVINSKY/FUISZ/SYKES, *supra* note 7.

[44] APRILL, *supra* note 9, 4; STAMPER, *supra* note 10, at 300 *et seq.* .

[45] KING, *supra* note 5, at 777.

On the other hand, the patentability of a tax shelter does not only confer a monopoly right upon the creator of the tax scheme; it also may produce the impression among the general public that the patented tax shelter is valid under tax law.[46] Yet this can only be confirmed by the tax authorities or the competent courts.[47] This is one of the reasons why tax authorities object to tax patents.[48]

Patent examiners face a daunting task in this respect. On the one hand, it is quite obvious that they are not equipped to assess the merits of a tax scheme under current tax legislation or to second-guess the application of the 'substance over form' principle by the courts.[49] These issues are regularly highly contested both by the tax authorities and the taxpayers. Moreover, the 'novelty' of a tax patent might not be clear for the patent examiners as previous tax advice by other professionals was regularly given on a confidential basis.[50] On the other hand, any self-restraint by the PTO under which the patent examiners restrict the scope of their screening to some formal requirements might send the wrong signal to presumptive clients. The information given by a tax advisor to his or her client that he is able to offer 'patented tax shelters' will be taken as a 'signal' for the reliability of the scheme.

Against this background it is a strange misconception that currently the PTO is willing to issue tax patents for tax shelters while at the same time the Internal Revenue Service considers the introduction of a regulation which shall force tax advisors and their clients to disclose 'patented transactions' to the tax authorities. This new disclosure requirement shall deter advisors and clients from using these transactions and it shall enable tax authorities to take legislative or judicial action against them. In other words: The fact that a tax strategy has been awarded a patent by the PTO, gives rise to the presumption that the same tax scheme will be regarded as 'abusive' by the tax authorities. This cannot be the final solution for the problem.

4. Conclusion

From the foregoing we can draw the conclusion that the patentability of tax strategies should be rejected – either by the courts or by the legislator. Although tax strategies are not simply matters of law but factual arrangements which might be accepted as 'business methods', there is a strong policy case against their protection under patent law. The reasons are different for legitimate tax planning and abusive tax shelters. Legitimate tax planning should be available for every taxpayer and not be restricted by patent law; there is no rationale for an increased protection of tax

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[46] AICPA, *supra* note 12; APRILL, *supra* note 9, at 9 *et seq*.; CATHEY/GODFREY/RANSOME, *supra* note 10, at 42; GRUNER, *supra* note 39, part I.C.1; JOINT COMMITTEE ON TAXATION, *supra* note 5, part IV, 24.

[47] EVERSON, *supra* note 30.

[48] CODER, *supra* note 18, at 896.

[49] APRILL, *supra* note 9, at 11; BEALE, *supra* note 37, part II; CATHEY/GODFREY/RANSOME, *supra* note 10, 42; KING, *supra* note 5, 778 *et seq*.; but see the statement by COGGINS, director of the business methods technology center at USPTO, as quoted by STAMPER, *supra* note 10, 302.

[50] AICPA, *supra* note 12; AICPA, *supra* note 13, at 23; APRILL, *supra* note 9, at 14; DEVINSKY/FUISZ/SYKES, *supra* note 7.

planning creativity in the market. Illegitimate tax shelters should not be accessible for everyone, but they should also not get a rubber stamp from the PTO as an apparently 'valid' strategy. Tax lawyers – both private practitioners and tax administrators – have a hard life anyway, so don't make it even more complex by adding patent law on top of it all.

Protection of Scientific Creations under Patent and Copyright Law

Gerhard Schricker

1. Professor Dr. Dres.h.c. Joseph Straus, to whom this volume and the present study are dedicated, has without any doubt a place in the first line of teachers and researchers in the field of patent law. This is true not only with respect to national law, but also to the globalized world to which the title of this 'liber amicorum' refers. Especially in the field of biotechnology the progress of legal elaboration is essentially due to the constructive ideas and the creative imagination of Joseph Straus. With good reason the range of contributions of the present book comprises not only technological but also economic aspects. It has to be counted among the outstanding merits of Joseph Straus that he considers economic impact as integral to legal reasoning, and does not forget that the essential task of legal instruments consists in indicating and resolving economic and social problems and conflicts.

2. In identifying patent law as the main field of Joseph Straus' scientific activity we should not forget that we have to thank him also for many other contributions. Thus the list of his publications appears as a flourishing and well cultivated garden where all types of the laws of intellectual property grow side by side. In this respect we have to mention especially copyright law. Among other writings Straus has published not only a monographical article on copyright contracts for scientific works[1] but also a fundamental treatise on the National and International Developments of Neighboring Rights.[2]

3. That patent law and copyright law are closely related is shown best in the treatise on the protection of the results of scientific investigation which Straus worked out together with Friedrich-Karl Beier, who for many years was Straus' academic teacher.[3] In the choice between the various possibilities of legal protection of scientific creations the authors show a clear preference for a patent approach, leaving aside the copyright option.[4] The following lines try to change the balance and to ask the question whether the need of protection could not also be served, and perhaps better served, by copyright law. This does not mean that the valuable suggestions made in the Beier/Straus book should be drawn in doubt. Nevertheless it should not be neglected that the actual development of patent protection can be criticised under the aspect of quantity. The actual practice seems to lead to a 'flood of applications which becomes more and more an insupportable burden for the global patent

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1 STRAUS, Der Verlagsvertrag bei wissenschaftlichen Werken, in: BEIER/GÖTTING/LEHMANN/MOUFANG (eds.) Urhebervertragsrecht, 291-331 (1995).

2 STRAUS, International Encyclopedia of Comparative Law, Volume XIV Copyright, Chapter 4 (1990).

3 BEIER/STRAUS, Der Schutz wissenschaftlicher Forschungsergebnisse (1982).

4 BEIER/STRAUS, *id.* at 31 *et seq.*

system'.[5] The climate does not seem to be favourable for the introduction of new categories of patentable inventions, but the prospects for protection under a less formal system, such as copyright, seem better. We remind the reader of the discussion on patent protection for computer programs and business schemes. In any case it does not seem totally superfluous to try to develop some ideas about copyright protection for scientific creations. In doing so, we concentrate on German law in order to keep with the limitations of space prescribed for each contribution of this volume.

4. Looking for the basic elements of copyright protection of scientific creations we may start with the finding that the definition of protected works in German law, as in the law of many other countries, includes not only 'literature' and 'art' but also 'science' ('Wissenschaft').[6] This definition corresponds with Art. 2 sec. 1 of the Berne Convention for the protection of literary and artistic works. The Convention is based on the formula 'literary and artistic works'[7] but it states expressly that scientific productions shall be included.[8] The difference between copyright and patent legislation is obvious: Whilst copyright law expressly includes scientific creations, in the patent legislation they are not only omitted but even – at least partially – expressly excluded in the definition of protectable inventions.[9]

5. The different legislative starting points in patent and copyright law let us presume that scientific creations should find a better protective climate under copyright law. Looking at the actual case law and practice in German copyright law, however, some reservations have to be made. Amazingly, it seems that scientific works are subject to a special treatment which implies a real discrimination with respect to non-scientific works of literature and art.[10] It is admitted in principle that scientific books, articles, lectures and pictorial presentations *etc.* could get copyright protection but certain restrictions are imposed. Scientific ideas, thesis, theories, findings, discoveries and other substantive material are excluded from protection, the latter

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[5] BRIMELOW (President of the European Patent Office), Press Statement, Süddeutsche Zeitung, October 10, 2007, p. 20.

[6] *See* § 1 German Copyright Act: 'Die Urheber von Werken der Literatur, Wissenschaft und Kunst genießen für ihre Werke Schutz nach Maßgabe dieses Gesetzes'. *Cf.* also § 2 sec. 1.

[7] *See* Art. 1 Berne Convention.

[8] *See* Art. 2 sec. 1: 'The expression "literary and artistic works" shall include every production in the literary, scientific and artistic domain …'

[9] *See* § 1 sec. 2 German Patent Act which recites: 'The following in particular shall not be regarded as inventions within the meaning of subsection 1: 1. discoveries, scientific theories and mathematical methods … 3. schemes, rules and methods for performing mental acts … 4. presentations of information.' § 1 sec. 3 adds: 'The provisions of subsection (2) shall exclude patentability only to the extent to which protection is sought for the above-mentioned elements or activities as such'. *Cf.* the identical provision in Art. 52(2), (3) European Patent Convention. For the interpretation of these exclusions *see* BEIER/STRAUS, Der Schutz wissenschaftlicher Forschungsergebnisse 31 *et seq*., 53 *et seq*.; SINGER/STAUDER, Europäisches Patentübereinkommen, Art. 52 no. 23 *et seq.* (2nd ed. 2000); NACK, Die patentierbare Erfindung unter den sich wandelnden Bedingungen von Wissenschaft und Technologie 225 *et seq.* with further references.

[10] *See* the – critical – comprehensive presentation by LOEWENHEIM in: SCHRICKER, Urheberrecht Kommentar, § 2 no. 60 *et seq.* with further quotations (3rd ed. 2006).

being focussed on mere formal elements. If an author lacks ambitions regarding the form of his work, and in particular if he uses the common scientific terminology and language, the result may often be a total loss of protection.

In the Copyright Act we do not find any indication of such special treatment of scientific works in general.[11] They should certainly be covered by *i.e.* the basic definition of protectable work in § 2 sec. 2, which requires a 'personal intellectual creation'.[12] Nevertheless, copyright practice shows itself very reluctant to protect scientific creations. In case law and legal literature we find various attempts to justify this restrictive opinion: Mere ideas, it is said, may never be protected. Protection could only be given to the form, not to the content.[13] It is required that scientific works have to reach an exceptionally high creative standard to be protectable.[14]

As to the non-protection of ideas, Art. 9 Nr. 2 of the TRIPS Agreement can be cited ruling that 'copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such'.[15] This exclusion seems to be derived from U.S.-copyright law,[16] transported into the TRIPS Agreement by a 'Statement of Views of the European, Japanese and United States Business Communities' of June 1988.[17] The formula obviously comes close to the relevant provision in patent law.[18] Its introduction into TRIPS seems primarily related to the discussion on the protection of computer programs. Consequently, the EC Directive on the Legal Protection of Computer Programs of 1991 excludes the protection of 'ideas and principles'.[19]

Critical voices as to the – at least partial – exclusion of scientific creations from copyright protection are not lacking. It is objected that 'abstract' or 'naked' ideas which have not found concrete elaboration might well fall outside the area of copy-

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[11] For the special provision referring to computer programs see below.

[12] 'Persönliche geistige Schöpfung'.

[13] *See* for the old problem of 'Form und Inhalt' LOEWENHEIM, *supra* note 10 at § 2 no. 53 *et seq*.; *Cf.* also HILTY, Das Urheberrecht und der Wissenschaftler, 2006 GRUR Int. 179 with further references.

[14] 'Gestaltungshöhe', *cf*. LOEWENHEIM, *supra* note 10 at § 2 no. 24 *et seq*., 34 *et seq*.

[15] *See* Art. 9 Nr. 2 of the Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994 IIC 209. *See* also Art. 2 WCT.

[16] *See* § 102 (b) Copyright Act of 1976/1988: 'In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.'

[17] 'In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle or discovery as such.' *See* BEIER/SCHRICKER, GATT or WIPO? New Ways in the International Protection of Intellectual, 355, 385 (1989). *See* also the opinion of WIPO (213) and of the European Community (322).

[18] *See* above IV.

[19] *See* Art. 1 (2) (2) of the Directive: 'Protection shall apply to the expression in any form of a computer program. Ideas and principles which underlie any element of a computer program … are not protected by copyright …'. *See* GOLDSTEIN, International Copyright, 538. Following the Directive an identical exclusion was included in § 69a (2) (2) German Copyright Act. For the interpretation *see* SCHRICKER/LOEWENHEIM, Urheberrecht Kommentar, § 69a no. 8-9.

right protection, but there is no obstacle to protect ideas which are vested in a perceptible individual form. The principles which in American law have been developed around the idea/expression-dichotomy are not binding in German or European law.[20] In any case we have to note that the TRIPS formula excludes only ideas 'as such' and does not mention scientific discoveries and principles among the unprotectable elements. Consequently, we may enjoy a certain discretion in dealing with the problem of copyright protection of scientific creations.

As to the form/content-dichotomy, it has been shown to have been clearly abandoned as to literary works the protection of which undisputedly also includes substantive elements, as for instance the protection of the plot of a novel against its use in a motion picture.[21] For scientific works the differentiation made by Eugen Ulmer has widely been accepted. He distinguishes between unprotectable individual elements and their protectable combination and elaboration in the 'web' of the work.[22] The requirement of an elevated creative standard ('Gestaltungshöhe') for scientific works is considered unnecessary, just as for works in general, mere individuality may suffice as the condition of copyright protection.[23]

6. Following this critical approach, do we come to the result of copyright protection for every scientific creation if it meets the standard of individuality? Eugen Ulmer suggests that a certain restriction nevertheless remains, namely, that given by the public domain.[24] Before we examine this idea, it seems useful to have a comparative glance to the result that Beier/Straus reach in the field of patent law. After having examined the conditions of patent protection - especially the concept of invention, the notion of industrial applicability and the requirement of existence of a finished invention - the authors recommend inclusion in the patent system of such results of scientific work as are close to application.[25] In reaching this conclusion, the authors do not omit a thorough examination of the role of scientific discoveries in the process of innovation, and of the question whether patent protection for scientific creations might be detrimental or favourable for the freedom of science and the scientific transfer of information. As to the latter problem, the authors come to the result that the inclusion of scientific creations in the area of possible patent protection does not restrict the dissemination of scientific-technical knowledge but decisively promotes it.[26]

7. Examining the public domain aspect in copyright law we can first state that it refers to elements which already belong to the public domain. They cannot be

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[20] SCHRICKER/LOEWENHEIM, *id.* at § 69a no. 8 with futher references.

[21] SCHRICKER/LOEWENHEIM, *id.* at § 2 no. 55.

[22] *See* ULMER, Urheber- und Verlagsrecht, 123 (3rd ed. 1980): 'Und soweit in literarischen und wissenschaftlichen Werken Sachverhalte, Gedanken und Lehren zur Darstellung kommen, ist die Individualität des Werkes angesichts der Freiheit der einzelnen inhaltlichen Elemente in der Vielheit der Gesichtspunkte, in der Beziehung, in der sie zueinander stehen, und in der Art der Darstellung, bildlich gesprochen im „Gewebe" des Werkes zu sehen.'

[23] SCHRICKER/LOEWENHEIM, *supra* note 19, at § 2 no. 31 *et seq*.

[24] 'Gemeingut', *see* ULMER, *supra* note 22 at 122.

[25] BEIER/STRAUS, Der Schutz wissenschaftlicher Forschungsergebnisse, 53 *et seq.*

[26] BEIER/STRAUS, *id.* at 62-63.

appropriated by subsequent inclusion in a work even if the author did not know of their existence. Using elements out of the public domain cannot be considered a creation.[27] The situation is different if we are in presence of a real scientific work which is neither preempted by the existing public domain nor consists in mere copying of the work of another. The public domain exception here signifies that copyright protection suffers a restriction to which other types of work are not exposed. What could be the justification of such restriction? It is customarily found in the constitutional right of freedom of science.[28] In the dominating view the constitutional ruling influences the interpretation of the general provisions of civil legislation, such as the basic provision of copyright protection in sec. 2 of the Copyright Act. On the other side, copyright protection is itself based on the constitutional rights of protection of property and personality.[29] The problem thus results in a conflict between two constitutional rights; it requires an evaluation and a balancing of both positions. The leading principle should be that restrictions should not go beyond the necessary and should keep within the limits of proportional and adequate solution. Without being able to go into the detail in the present study we can presume that it would in any case go too far to exclude the whole scientific production from copyright protection, nor does it justify an exclusion of the whole content of scientific works. A reasonable criterion would rather be to draw the line between those elements which seem indispensable for scientific information and discussion and the elements which could be reserved for the author without detriment for the development of science.[30] In application of this rule one has also to consider the possibilities opened by existing copyright limitations such as the right of quotations and other fair use. Where such limitations suffice for the necessities of scientific discussion the law must not go so far to totally exclude protection.[31]

8. The foregoing discussion leads to a position relatively favourable for the copyright protection of scientific creations. Compared with the patent solution proposed by Beier and Straus, the copyright approach goes further. It is not restricted to creations of a technical character, nor does it concentrate on inventions close to application.

Looking at the actual development of copyright policy, however, strengthening the copyright position of scientific works seems far from feasible and even appears

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[27] We leave aside the case that free elements are elaborated or combined in an individual manner.

[28] *See* Art. 5 (3) German Grundgesetz (GG): 'Kunst und Wissenschaft, Forschung und Lehre sind frei'. In addition often the right of free speech and information is cited, *see* Art. 5(1) GG.

[29] Art. 14 GG for the economic right of the author, Art. 1 and 2 for the protection of the peronal aspects of copyright, *see* SCHRICKER, *supra* note 10 at Einleitung no. 11 *et seq.*; MELICHAR in: SCHRICKER, *supra* note 10 at Vor §§ 44a ff. no. 7 *et seq.*; DIETZ, 2006 GRUR Int., 1 *et seq.* .

[30] SCHRICKER/LOEWENHEIM, *supra* note 19 at § 2 no.64.

[31] *See*, however, for the conflict between the free use of copyright limitations and technical protective measures HILTY, *supra* note 13 at 180-181. Such measures are not to be expected by the single author but by exploiting enterprises. Consequently, it is a problem of control of the copyright industry, HILTY, *supra* note 13 at 179, 186 *et seq.*, 189 *et seq.*

anachronistic. To the contrary, the actual discussion is dominated by the claim for open access to scientific works.[32]

The actual starting point for the open access movement, as backed today by the most important German science organisation and as it has spread internationally, is to be found in the policy of commercial publishing houses, especially in the high prices they charge for their printed and digital products. It is objected that scientists in universities and other state funded scientific organisations are paid by the state for their research activities, and that the state then has to pay for these results once more to acquire their relevant books, reviews and digital information. This allows publishing houses to make high profits.[33] As a solution, it is proposed to replace the commercial dissemination of scientific information operated by publishing houses with the free and open distribution of scientific results in publicly accessible digital servers.[34] At the very least, commercial distribution should be accompanied by a parallel free offer.[35]

Of course such a revolution in the scientific information system is not exempt from difficulties, especially as to the costs.[36] One severe problem is maintaining quality control, which has until now been exercised by publishing houses or by peer reviews organised by them. There is the danger that with the new system the recipient will be drowned by a flood of more or less qualified information which he cannot evaluate and which often will belong to the category of informational junk.

Other questions are related to copyright law. It seems that the system of open access has a certain tendency to neglect the individual rights of the authors. Let us consider the position of University professors. Their present standing in copyright law may be described as follows:[37] The legal basis for their activities is found in the constitutional freedom of science.[38] This general principle is applied in the light of university laws and the copyright legislation. University professors are obligated to teach and do research,[39] but not to produce works protected by copyright. Such works do not belong to the official sphere but to the free individual sphere of the professor. The fundamental copyright principle of ownership of the creator of the

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[32] *See* 'Berlin Declaration on Open Access to Knowledge in Sciences and Humanities' from 2003. *See* for the development of this idea, its background and an evaluation in the light of copyright legislation the comprehensive article by HILTY, *supra* note 13 at 179 *et seq*., 184 *et seq*. *See* also HECKMANN/WEBER, Open Access in der Informationsgesellschaft - § 38 UrhG de lege ferenda, 2006 GRUR Int. 995 *et seq.* with references to the favourable position of the Bundesrat and the negative attitude of the Bundesregierung. Critical from the viewpoint of publishing houses V. LUCIUS, Forschung & Lehre 3/07, 156 *et seq*.

[33] HILTY, *supra* note 13 at 179, 182, 183.

[34] For the details *see* HILTY, *supra* note 13 at 179, 183 *et seq.*

[35] *Cf*. HECKMANN/WEBER, *supra* note 32 at 995, 998 *et seq*.

[36] HILTY, *supra* note 13 at 184-185; HECKMANN/WEBER, *supra* note 32 at 995 *et seq.*

[37] *See* SCHRICKER in: HARTMER/DETMER (eds.), Hochschulrecht, 419 et seq. (2004); KRASSER/SCHRICKER, Patent- und Urheberrecht an Hochschulen, 61 *et seq.* with further quotations (1988).

[38] *See* above 7.

[39] Verpflichtung zur Lehre und Forschung.

work[40] is applicable. This principle is not derogative. Consequently, the author is free to exercise his exclusive right and to exploit the work by licensing publishing houses and other users at his own profit. The university cannot obtain the copyright as such as it is not transferable inter vivos.[41] The only possibility of university participation consists in obtaining a limitted right of use[42] on a contractual basis.

If we examine the open access system in light of the above principles we must first state that the ownership of the author has to remain untouched. Depriving the author of his rights, and obliging him even to pay for to divulge his work, would be an illegal expropriation.[43] Open access can only be construed on the basis of the consent of the author.[44] It is for the author himself to declare the work open for free use, which could be construed as the offer of a free license to everybody.[45] The author could also give an exclusive license to the university, allowing it to set the work free for everybody. In any case the not transferable faculties of the author's personal right[46] have to remain untouched. The licensing of the university is subject to the principal obligation to give to the author an adequate remuneration,[47] while the open license to everybody can be free of remuneration to be paid by the recipient.[48]

In sum, one can say that the system of open access must not be construed on the basis of depriving the author of his ownership of copyright but on the basis of licensing the use of the work. This naturally refers to works enjoying copyright protection. Where unprotected basic scientific information is involved[49] there are no substantial copyright obstacles for providing free access.[50] Perhaps there might be an exceptional case in which the protection of secrets and the general protection of personality could hinder free publication by the university, but the discussion of such exceptions does not fall within the scope of this short article. In any case patent protection has to be respected if it is given for scientific creations.[51]

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40 Schöpferprinzip, § 7 German Copyright Act.
41 § 29 (1) German Copyright Act.
42 Nutzungsrecht, § 29 (2), §§ 31 *et seq*. German Copyright Act.
43 Such possibilities are nevertheless discussed by HILTY, *supra* note 13 at 185 with reference to developments in the United States.
44 This seems to be recognized in no. 1 of the Berlin Declaration, *see* HILTY, *supra* note 13 at 184.
45 *Cf.* § 32(3), (3) German Copyright Act.
46 Urheberpersönlichkeitsrecht, §§ 12 *et seq.* German Copyright Act.
47 § 32 German Copyright Act.
48 Unentgeltlich, § 32 (3) (3) German Copyright Act.
49 *Cf.* above 5.
50 Practical limitations can come out of the fact that protected elements and free elements are mixed up, *cf*. HILTY, *supra* note 13 at 180-181.
51 *Cf.* above 6.

Personal Rights of Inventors in the Polish Legal System

*Janusz Szwaja**

1. Introduction

1. Intellectual property law and its teaching are developing continuously. A particularly clear indication of this fact are new categories of inventions, *e.g.* recent pharmaceutical and current biotechnological inventions. A discussion has arisen in this regard concerning the foundations of legal construction in the area of patent law concerning, for example, the term 'invention' and its definition as opposed to scientific discovery, the novelty of the invention (in connection with its second and subsequent modes of utilization), and the commercial applicability of the invention. Another indication for the above-mentioned tendency can be observed in the establishment of trans-national patent law systems. A problem, which has generated little interest in the last years, in particular with the member states of the Convention on the Grant of European Patents (Munich Convention) is the position of the inventor (the creator of the invention) and the content of his rights, and with that the inventor's personal rights. Fewer and fewer academic publications, rulings by patent offices as well as decisions by the courts are dedicated to this problem.

2. My humble contribution to this collection of essays honoring Professor Dr. Straus on the occasion of his birthday will involve a discussion of this question. I submit that three conditions justify this choice: firstly Professor Straus has dealt extensively and keenly with this problem.[1] I am of the opinion that this problem with respect to new methods in creative activity has not lost any of its current importance. On the one hand, they support humanity's intellectual activities by means of the most modern technical accomplishments, and on the other hand they enrich collections of indigenous heritage. In the countries that have recently become members of the Munich Convention, including the Republic of Poland, the corresponding research seems necessary in order to clarify the situation as to whether national legal requirements do not conflict with the provisions of the agreement.[2] In

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* Dr. Robert Rogala assisted in the documentation of the contribution in order to express his gratitude to Professor Dr. Straus on this occasion. The author is very much indebted to Mr. Charles Heard for the translation of his text.

[1] *See* in particular the following publications: Der Erfinderschein – Eine Würdigung aus Sicht der Arbeitnehmererfindung, 1982 Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil (GRUR Int.) 706 *et seq.*; Die international-privatrechtliche Beurteilung von Arbeitnehmererfindungen im europäischen Patentrecht, 1984 GRUR Int. 1 *et seq.*; Rechtsvergleichende Bemerkungen zum Begriff des Arbeitnehmererfinders, 1984 GRUR Int. 402 *et seq.*; Arbeitnehmererfinderrecht – Grundlagen und Möglichkeiten der Rechtsangleichung, 1990 GRUR Int. 353 *et seq.*; Zur Gleichbehandlung aller Diensterfindungen – Überlegungen zur angestrebten Reform des Gesetzes über Arbeitnehmererfindungen, in: HASEMANN ET AL, Festschrift Kurt Bartenbach zum 65. Geburtstag 111 *et seq.* (2005).

Poland, the problem involves the alignment of the Industrial Property Law (IPL) with the provisions of the above-mentioned Convention.[3] One must pose the question whether the requirements of the IPL in its present wording fulfill the requirements of the Constitution[4] and harmonize with the principles of civil law, in particular with the Civil Code (CC)?[5]

2. Applicable Law in Poland

1. The Constitution of the Republic of Poland contains no provisions referring explicitly to the rights of the creators of inventions, *i.e.* the inventor. However, there are several regulations which may be helpful in elaboration of the rules in the area of intellectual property.

Of critical importance in this regard is the provision of Article 30 of the Constitution which states: 'A person's human dignity is inborn and inalienable. It forms the source of freedom and law for people and citizens. It is inviolable, and its observance and protection is the obligation of the powers of State.' This requirement is, among others, the basis for personal rights, which are regulated in more detail in the respective legislation.

It is important to refer to one other provision included in the Section on freedom and economic, social and cultural rights, namely Article 73 of the Constitution. One can gather from the wording of this provision that 'every one is guaranteed the freedom of creative activity, scientific research and the publication of such results'. There is no doubt that the creators of works who enjoy copyright protection as well as researchers may appeal to this provision.[6] Even though this requirement does not

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[2] Concerning primarily the alignment with the Paris Convention, Stockholm Version, ratified by Poland (OJ 1975, No. 9, Pos. 51 and 52); the Munich Convention on the Grant of European Patents (European Patent Convention) including the Revision (EPC 2000), ratified by Poland (OJ. 2004, No. 79, Pos. 737 and 738, as well as OJ 2007, No. 236, Pos. 1736 and 1737); *cf. also* the Law on the European Patent Registration and its Effect on the Republic of Poland dated March 14, 2003 (OJ 2003, No. 65, Pos. 538, Amendment OJ 2007, No. 136, Pos. 958); the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), ratified by Poland (OJ 1995, No. 98, Pos. 483 and 484, as well as OJ 1996, No. 32, Pos. 143).

[3] *See* the Industrial Property Law dated June 30, 2000 (OJ 2001, No. 49, Pos. 508, amended numerous times (last amendment dated Juni 29, 2007, OJ 2007, No. 136, Pos. 958), hereinafter IPL; translation in German (2001 GRUR Int. 927-960).

[4] Constitution of the Republic of Poland dated April 2,1997 (OJ 1997, No. 78, Pos. 483, correction OJ 2001, No. 28, Pos. 319, amendment OJ 2006, No. 200, Pos. 1471); German translation 'Verfassung der Republik Polen', (Verlag des Sejm, Warsaw 1997).

[5] Civil Code dated April 23, 1964 (OJ 1964, No. 16, Pos. 93, numerous changes, last amendment to the Law dated February 10, 2008, OJ 2008, No. 181, Pos. 1287), hereinafter CC; German translation 'Polnische Wirtschaftsgesetze', 11 *et seq*. (5th ed., Beck Verlag, Warsaw 2001).

[6] In Polish constitutional teaching, human dignity is seen as a privilege of the possessor (subjective right), whose embodiment is subjective law of detailed character, including the right of respect and honor as well as the freedom of choice over one's own life. *Cf.* M. JABŁOŃSKI, Rozważania na temat znaczenia pojęcia godności człowieka w polskim porządku konstytucyjnym, in: B. BANASZAK & A. PREISNER (eds.), Prawa i wolności obywatelskie w Konstytucji RP 91 *et seq.* (Beck Verlag, Warsaw 2002); L. Garlicki, Wolności, prawa i obowiązki człowieka i obywatela, in: WYDAWNICTWO SEJMOWE (ed.), Konstytucja Rzeczypospolitej Polskiej. Komentarz 16 *et seq.* (Warsaw 2003).

explicitly mention the creator of the new technology or the inventor, I am of the opinion that the requirement for 'freedom of scientific research' does not refer purely to scientific activities but also to practical research activities. Such an interpretation of the requirement in Article 73 corresponds to the content of Article 23 CC of 1964, whose provisions were not changed following the transformation of the Polish legal system subsequent to parliamentary elections in June 1989.[7]

2. The above-mentioned provisions of Article 23 CC determine that personal objects of legal protection, in particular health, freedom, integrity, freedom of religion, name and the pseudonym, one's own image, privacy of correspondence, the inviolability of one's residence, creative activity in the areas of science and the arts, the inventive activity, stand under the protection of civil law, independent of the protection granted in other provisions.[8] This protection is also independent of the fact the infringement of many personal rights cited in Article 23 may or may not be pursued via criminal proceedings.

In Polish legal doctrine, there is a widespread opinion concerning the variety of objects of personal rights, whose identification should occur according to the objects of protection. The variety of objects corresponds to the variety of rights which ensure the rightholder the protection of these objects.[9] With regard to the question of the interpretation of the essence of objects of personal rights and their infringement, the opinion on objective criteria of judgement is strongest, which follows the conventional judgements of the public.[10]

The provisions of Article 24(1) and (2) CC are applied to the objects of personal rights found in an Article 23 CC accordingly; *i.e.* the claims for which the injured party may assert his personal rights against the offending party. Article 24(3) deter-

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[7] A similar position is seen in constitutional legal doctrine. According to M. Jabłoński, the suggestion on the introduction of a corresponding provision ('every author and inventor has the right of protection of his intellectual property rights') was not considered in the preparation of the draft of the Constitution. Even though there is no direct reference to the requirements of the basic laws in Article 73 of the Constitution, they will decide as to who is recognized as the creator and which rights are ascribed to him. M. JABŁOŃSKI, Wolność z Art. 73 Konstytucji, in: Prawa i wolności obywatelskie w Konstytucji RP 565.

[8] The requirements which refer to Article 24(3) CC, are now found in the IPL; *see supra* note 3; *see also* the Copyright Law and related Rights dated February 4, 1994 (OJ 1994, No. 24, Pos. 83, amended several time, last amendment in the law dated September 7, 2007, OJ 2007, No. 181, Pos. 83); German translation: 1994 GRUR Int. 479-491.

[9] Following concurring opinions in the case law of Polish courts and of legal doctrine, the list of personal goods from Article 23 CC is not exhausted; *cf.* S. GRZYBOWSKI, in: System prawa cywilnego. Część ogólna 390 Vol. 1 (2nd ed., Ossolineum, Wrocław 1985); A. SZPUNAR, Ochrona dóbr osobistych, PWN 115 *et seq.* (Warsaw 1979); M. PAZDAN, Dobra osobiste i ich ochrona, in: M. SAFJAN (ed.), System Prawa Prywatnego 1118, Vol. 1, Prawo cywilne. Część ogólna, Vol. I, (Beck Verlag – INP PAN, Warsaw 2007); Z. RADWAŃSKI, Prawo cywilne – część ogólna 161 et seq. (8th ed., Beck Verlag, Warsaw 2005).

[10] *Cf.* A. SZPUNAR, Ochrona dóbr osobistych 106 *et seq.* (PWN, Warsaw 1979); M. PAZDAN, *op. cit.*, at 1116 *et seq.*; Z. RADWAŃSKI, *op. cit.*, at 172 *et seq.*; A. CISEK, in: E. Gniewek (ed.), Kodeks cywilny. Komentarz 93, Vol. 1, (Beck Verlag, Warsaw 2004); likewise concerning creators' personal rights, E. WOJNICKA, Autorskie prawa osobiste, in: J. BARTA (ed.), System Prawa Prywatnego 228 *et seq.*, in particular 241, Vol. 13, Prawo autorskie (2nd ed., Beck Verlag – INP PAN, Warsaw 2007).

mines further that the provisions of Articles 23 and 24 CC may not infringe the rights stemming from copyright law and patent law. In this regard, an inventor's personal rights must be qualified as objects of personal rights in the sense of the regulations of the CC. As a rule, the requirements of the CC find their application cumulatively in these rights according to the explicit wording of Article 24(3) CC.[11] From this derives, in principle, the possibility for the creator of the invention to enforce the damages under the CC as well as in the IPL regulation. Of course, this is only the case when both laws guarantee the injured inventor of the claiming of the same damages. This does not mean that he may demand double compensation. He is, however, free to base some of his claims on the one regulation and some of his claims on the other.

3. The international agreements in the area of industrial property highlight the questions of the existence, the content and the protection of patent rights, in particular the problem of rights deriving from the patent. On the other hand, they offer almost nothing with regard to the powers of the inventor, except that he is simultaneously owner of the patent right, whereas his right to the patent rather than the question of the creatorship of the invention is emphasized.

Over the course of time, during the Revision Conference in London in the year 1934, the accepted regulation of Article 4ter of the Paris Convention for the Protection of Industrial Property (Paris Convention) first appear, which states: 'The inventor shall have the right to be mentioned as such in the patent.' The regulations of the agreement allow member states the freedom of choice in determining the rights of inventors, in particular the requirements for the recognition of inventors, the content of the authority granted the inventor, his protection from infringement and procedural questions.[12]

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) does not contain any specific regulations in this regard affecting either the legal position of the inventor or his personal rights. The rights of the inventor are not mentioned; this is particularly clear in the reading of Article 29(1) TRIPS, even though its regulations mention the exhibit of the best embodiment of the invention known to the inventor on the application date or priority date of this invention.

In contrast, the European Patent Convention (EPC) contains the regulations in line with the principle accepted in Article 4ter Paris Convention, although this agreement also does not completely clarify the legal position of the authority accorded to the inventor.[13] They are also included in the Polish law.

4. The fundamental significance of inventors' rights is found in Title I – General Regulations, in Article 8 IPL. Paragraph 1 of this Article designates that the creator

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[11] *See e.g.* M. PYZIAK-SZAFNICKA, Pojęcie prawa podmiotowego, in: M. SAFJAN (ed.), System Prawa Prywatnego 719 *et seq*., Vol. 1, Prawo cywilne. Część ogólna, Vol. I, (Beck Verlag – INP PAN, Warsaw 2007); M. PAZDAN, Dobra osobiste i ich ochrona, in: J. BARTA (ed.), *id*., 1141 *et seq.*; E. WOJNICKA, Autorskie dobra osobiste, in: System Prawa Prywatnego 225 Vol. 13, Prawo autorskie, (Beck Verlag – INP PAN, 2nd ed., Warsaw 2007).

[12] *See* G. BODENHAUSEN, Guide d'application de la Convention de Paris pour la protection de la propriété industrielle, telle que revisée à Stockholm en 1967, 66 (BIRPI, Genève 1969).

[13] In particular in Articles 62, 81, 90(3) and (5) EPC. Former Article 91 EPC has been annulled.

of the invention is accorded the following rights by law: the right to obtain a patent; the right of remuneration; and the right to be named as inventor in the patent claim, the register as well as other records and publications. It is apparent that these regulations affect both property and personal rights. To the latter belong the right to the patent and the right of remuneration deriving from the invention, to the former personal rights, in particular the right to be named as inventor. The question of the implementation of this final capacity affects the provisions of Article 32 IPL as well as Section 5(2)(5) and (6), Section 18(1) and (2), Section 32(2) and (3) Section 39(2) of the Decree of the President of the Council of Ministers on the registration procedure of inventions and utility models of 17 September 2001 (OJ 2001, No. 109, Pos. 910). It is derived from the regulations presented thus far that the applicant is required to state the identity of the inventor of the registered invention in the application. If the applicant is also the inventor, a declaration of such is sufficient. In the event that the applicant is not the inventor, he is required to identify the inventor by providing his name and address. Furthermore, he is required to explain the circumstances giving reasons for the fact that the applicant holds the rights to the patent. Should this documentation be lacking, the person registering the patent will be called upon to supplement the application within a fixed period of time under threat of the suspension of the registration procedure. The procedure will be concluded with the decision of the patent office concerning the rejection of the granting of the patent or with the decision to grant the patent, only when the requirements for the granting of the patent have been fulfilled.

The granting of the patent is confirmed through the patent certificate, a part of which includes the patent specifications. The inventor is named in the patent specification. In the publication of the patent office a notification on the granting of the patent is published within which the first and last name of the inventor is provided.

5. In Polish legal doctrine, the above-mentioned capacity of the inventor to be named in the patent application, the patent and the publication of the patent office is actually not recognized as an independent, subjective personal right; it is far more seen as a capacity deriving from the inventors' creatorship, and not a subjective right (*droit à la paternité*) of an immaterial and civil law nature.[14]

Apart from the above-mentioned capacity, the inventor has the right to invention's creatorship, which also includes other capacities, of both a positive and, to a certain extent, a negative character. The inventor is authorized to act as the creator of the invention, including the right to demand a formal confirmation of his capac-

[14] *Cf.* J. PREUSSNER-ZAMORSKA, Prawo do autorstwa wynalazku, 2 ZNUJ, PWiOWI 85 *et seq.* (Warsaw-Kraków 1974); J. SZWAJA, Les droits non-patrimoniaux (droits moraux) des auteurs d'inventions d'employe dans le droit polonais, 40 ZNUJ, PWiOWI (Warsaw-Kraków 1985); *id.*, Prawa osobiste wynalazców, in: J. PIĄTOWSKI (ed.), Dobra osobiste i ich ochrona w polskim prawie cywilnym 181 *et seq.*, (Ossolineum, Wrocław 1986); *id.*, Twórcy i ich prawa osobiste, in: J. SZWAJA & A. SZAJKOWSKI, System Prawa Własności Intelektualnej 83 *et seq.*, Vol. 3, Prawo wynalazcze, (Ossolineum, Wrocław 1990); *id.*, Prawa osobiste wynalazców w nowej ustawie – Prawo własności przemysłowej, 80 ZNUJ, PWiOWI 229 *et seq.* (Kraków 2002); A. SZEWC & G. JYŻ, Prawo własności przemysłowej 307 *et seq.* (Beck Verlag, Warsaw 2003).

ity, in particular in the files of the patent office. If necessary, the inventor may assert his rights before an ordinary court. In the event that the applicant has not named the inventor in the patent application, the inventor may bring an action for the right of determination of the creatorship of the invention before a court, in which the creatorship of the invention applied for with the patent office is examined and determined, as well as the requirement that the applicant will complete or correct the patent application accordingly.

6. In Polish legal doctrine, the question of whether the inventor possesses the right of determination concerning the disclosure of the invention has been dealt with, in particular the right of publication, with respect to *droit de rester inédit*, that the author is guaranteed according to the provisions of copyright law.[15]

At this point, it must be noted that the situation of an invention made by an employee is fundamentally different than that of the creator of a free invention. The one is required to reveal an invention to the business owner or the customer who commissioned it. Furthermore, the owner of the right to the patent decides on the confidentiality or the registration of the invention with the patent office, or its disclosure by other means. The creator of the free invention may decide according to his own will whether to hold the invention confidential or to register it with the patent office as authorized person according to his right to register the patent. However, one must consider the following: should he decide to hold the invention confidential, he must accept the fact that another inventor may arrive at an identical technical solution, and further may register this invention with the patent office as right holder and may thereby obtain a patent. The result being that the original inventor loses his chance of obtaining the patent and his invention will be revealed without his consent before the patent office.[16]

7. It cannot be denied that the right of paternity (*droit de la paternité*) enjoys protection under both civil and criminal law.[17] Article 303(1) IPL stipulates: a person who usurps the authorship to a rationalization proposal or deceives someone with regard to the authorship or infringes upon the rights of the author of a rationalization proposal in any other way, will be punished with a fine, or restriction in freedom of movement or imprisonment of up to one year. Should the perpetrator commit such an offence with the goal of the obtainment of monetary or personal

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[15] On the existence of such a right, *see* J. PREUSSNER-ZAMORSKA, Prawo do autorstwa wynalazku 39; *cf. also* S. GRZYBOWSKI, in: S. GRZYBOWSKI, A. KOPFF, J. SZWAJA & S. WŁODYKA, Zagadnienia prawa wynalazczego 81. An opposing opinion, M. STASZKÓW, Wynalazki i ich ochrona w prawie polskim 108 (Ossolineum, Wrocław 1970); A. KOPFF, in: S. GRZYBOWSKI & A. KOPFF (eds.), Prawo wynalazcze. Zagadnienia wybrane 192 *et seq.* (Warsaw 1978); J. SZWAJA, in: System Prawa Własności Intelektualnej 94 *et seq.*, Vol. 2, Prawo wynalazcze; K. CZUBA, Prawa osobiste twórcy projektu wynalazczego, Gdańskie Studia Prawnicze 161 *et seq.*, Vol. 7, (Gdańsk 2000).

[16] Referring to this situation *see*, A. TROLLER, Immaterialgüterrecht 609, Vol. 2, (3rd ed., Verlag Helbind und Lichtenhahn, Basel – Frankfurt a/M 1985); R. KRASSER, Patentrecht 343 *et seq.* (5th ed., Beck Verlag, Munich 2004); *see also* J. SZWAJA, in: System Prawa Własności Intelektualnej 95, Vol. 3, Prawo wynalazcze.

[17] *See e.g.* R. ZAWŁOCKI, Przestępstwo przeciwko przedsiębiorcom. Komentarz 209 *et seq.* (Beck Verlag, Warsaw 2003); A. SZEWC & G. JYŻ, Prawo własności przemysłowej 441 *et seq.*

advantage, he may be punished with a fine, a restriction in freedom of movement or imprisonment for up to two years.

3. Conclusion

It must be emphasized that current Polish law protects the personal rights of the inventor, in particular the right to the creatorship of the invention. This is grounded in the Constitution, the Civil Code and the Industrial Property Law. According to the provisions of Article 4ter Paris Convention and Article 81 EPC, Polish law guarantees the naming of the inventor in the patent certificate and in particular the patent specifications. It also imposes on the applicant the responsibility to designate the inventor as such in the application. Furthermore, it requires the patent office to name the inventor in its official journal in connection with the publication concerning the grant of the patent. The content of the inventor's personal right in Poland is not limited to a right to be named in the patent. This is only one of the rights which form the inventor's right of creatorship. This right is protected in both civil and criminal law.

Currently, the inventor's personal rights play an important role – and not only in Poland – and the solution of the problem concerning inventor's creatorship can justify the presence or the content of subjective rights of patentees. The idea of inventor's creatorship has the effect that one maintains a distance from a suggestion of the implementation of the category of company inventions as only a natural person can be the creator of an invention. The assertion of the idea of the creatorship of an invention depends on which owner has the right to the patent. This right generally appears to be a fundamental right of the inventor, who may or must transfer it to another owner. The question of creatorship of an invention is even of significance with respect to company inventions. The right to the patent belongs namely to a business owner or a company to which the inventor was bound in a privileged relationship (e.g. an employment contract). One can say that the right to a patent follows from the right to the creatorship of an invention. A clear sign of this legal capability is the responsibility to name the inventor in the application. When the applicant is not the inventor or the only inventor, he should provide an explanation concerning the obtainment of the rights. As the inventor's personal rights are protected by the Constitution as freedoms as well as human and civil rights, and with respect to aspects of civil law as personal rights, it is necessary to account for their protection and to justify them with sufficient strength, which makes the elaboration of the appropriate procedural means unavoidable.

The Priority Right in Patent Law – Use and Misuse?*

Eike Ullmann

1. Introduction

'First come, first served' is the often-used maxim for all those pursuing something of value. And those who would like to display their humanistic education use the Roman legal phrase '*prior tempore, potior iure.*' This is the pre-eminent rule in the battle over rights.

Everyone has the right to be first, and there are many chances to be just that. One must have something practical, something useful to offer. Should one be faster than all of the others, and present at the proper filing desk, he or she will enjoy priority.

The individual accrues of this right of priority from his own freedom to act. It must be distributed equally. Discrimination is forbidden. It is not necessary to employ constitutional law for this recognition. The member states of the Paris Convention for the Protection of Industrial Property (Paris Convention) of March 20, 1883 already agreed that citizens of (other) member states may not be discriminated against with respect to native residents concerning to their right to priority (Article 2(1)). The treatment of citizens and the priority right are the pillars of the Paris Convention.[1]

The priority right, however, would not be worth mentioning if it ensured that the moment of arrival (at the registration office) is registered and (in relation to those following) maintained. Such a priority derives from reality, namely from the determination of having delivered something significant at a particular time to a particular place.[2] The area of the legal dimension is reached when it is determined for what purpose the holder of the priority is able to use the acquired priority. From the *right to priority* develops a *right from the priority* and a *right in the priority.* The one ahead of the others may utilize the acquired priority within a certain period for an (identical) substitute. He may assign the right from the priority to another.[3] The assignee acquires the right to the priority.[4]

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* The author is very much indebted to Mr. Charles Heard for the translation of his text.

1 RUHL, Unionspriorität, marginal note 137 *et seq.* (2000); ULLMANN, in: BENKARD (ed.), Kommentar zum Patentgesetz, Intro. Int. Part, marginal notes 14, 21 (10th ed. 2006); WIECZOREK, Die Unionspriorität im Patentrecht 10 *et seq.* (1975); LINS, Das Prioritätsrecht für inhaltlich geänderte Nachanmeldungen, 2 *et seq.* (1992); BEIER/STRAUS, Probleme der Unionspriorität im Patentrecht, 1991 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 255 *et seq.* .

2 NEUNER, Der Prioritätsgrundsatz im Privatrecht, 203 Archiv für die civilistische Praxis (AcP) 46, 70 (2003).

3 *Cf.* Art 4A (1) Paris Convention; RUHL, *supra* note 1, marginal note 257; ULLMANN, *supra* note 1, Intro. Int. Part, marginal note 35; WIECZOREK, *supra* note 1, 128, 149 *et seq.* (1975).

4 As such sizeable according to Section 857, Code of Civil Procedure; *cf.* also ULLMANN, *supra* note 1, Intro. Int. Part, marginal note 35.

In the area of industrial property, the right to the priority and from the priority is set down in Article 4 Paris Convention and in Article 2(1) of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of April 15, 1994, the basis of the worldwide flow of trade. In order to protect intellectual property, the TRIPS member states are required to observe the requirements of Articles 1–12 Paris Convention. The awarding of a priority right is an international standard.

In order for the right to priority to develop into a right from the priority, international agreements (Article 4A(1), C(1) Paris Convention; Article 87(1) EPC) and national legal systems (Secs. 40, 41, German Patent Act) allow a priority period. This creates for the one authorized from the priority the space to determine whether he wishes to make use of the acquired priority from the first registration of an industrial property right, in order to (de facto) shift through a second registration the beginning of the duration of the right, without having to be confronted by the state of the art published since the initial registration.

The continuing development of the priority right beyond the Paris Convention lies in that not only an application in a (another) member state, but also an application made within the scope of a further filing gives rise to the priority right. Alongside the 'so-called' external priority, there is henceforth also an internal priority. The transfer of the privilege extending from the priority right of the Paris Convention to national cases (Section 40 Patent Act) has its origin in international legal developments.[5] With Article 8(2) of the Patent Cooperation Treaty (PCT) of June 19, 1970 an international application was made possible, which can be filed for a number of member states (designated states), to claim the priority of a first application in a designated member State (auto-designation). The same is true when the applicant of a European batch patent refers to a priority of a previous national or European patent application (Articles 87, 88 EPC). The priority right has thereby acquired, in both national and European contexts, an independent regulation, which is in line with the principles of the Paris Convention.[6]

In order to safeguard this right from the priority, it is necessary that a connection exists with respect to content (objective identity) between the first application and the further filling, and that a bond of authorization extends between those applications (subjective identity).[7] It would not be reconcilable with the principles of a just legal system if the grant of a legal advantage to a previous deposit would extend to a different subject of protection or an unauthorized person.

2. The Matter under Consideration

The matter under consideration is the question of which significance the principle of identity of the application giving rise to and the application claiming priority (objective identity) and the principle of the identity of the applicant as a person

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5 LINS, *supra* note 1, 85 *et seq.* .

6 ULLMANN/GRABINSKI, in: BENKARD (ed.), Kommentar zum Europäischen Patentübereinkommen, prior to Arts. 87–89, marginal notes 1, 3 (2002).

7 RUHL, *supra* note 1, marginal note 257; LINS, *supra* note 1, 5.

(subjective identity) has for the right from the priority in patent law. To this end, recent EPO decisions are discussed in which issues are put forth, on the one hand the catchphrase 'usage of the right from the priority' and on the other 'the abuse of the priority right'.

The considerations on objective and subjective identity are tied in with Article 87 (1) EPC.

According to this Article: 'A person who has duly filed … an application for a patent … or his successors in title, shall enjoy, for the purpose of filing a European patent application in respect of the same invention, a right of priority during a period of twelve months from the date of filing of the first application.' Mentioned, in particular, as crucial terms are 'application in respect of the same invention' and 'first application'.

With these terms, the question is addressed as to whether the priority for the same invention can only be utilized effectively once within the priority period – and whether thereby the priority right for a second identical application is exhausted. On the other hand, the question is raised as to whether the term 'first application' implies, that this must be executed by the applicant (or his legal predecessor) of the application claiming priority, which if answered in the affirmative could lead to abusive (numerous) claims from the right from priority (for one and the same invention) through different applicants.

2.1 'Usage' of the Priority Right?

Concerning the question of the usage of the right from the priority, the case in the EPO decision dated September 15, 2003 – T 998/99[8] is illustrated simply: a national application dated February 1, 2000, claiming object A (N1); further identical EP filing August 1, 2000 (EP1); additional identical EP filing October 1, 2000 (EP2). For both filings the same applicant claims the priority from N1. EP1 and EP2 are granted. EP2 will only withstand an opposition when, in the case of EP2, the priority from N1 can be effectively claimed a second time within the priority period. Should this not be the case, the published N1 and EP1 are prejudicial to novelty (Article 54(2), (3) EPC).

The EPO rejects an effective second claim of priority of the first application (N1) for an identical second and subsequent filing (third application EP2): 'Article 87 (1) EPC does not allow for numerous applications in the same country within the priority period for the same object and therefore for the same invention under the claiming of the same priority documents.' As exceptions are interpreted closely, it follows that the priority right can only be claimed for the first further filing.[9]

The decision ought to be concurred with in its results, but not in its reasoning. An initial argumentative indication to answering the question whether the right

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[8] 2004 Mitteilungen der deutschen Patentanwälte (Mitt.) 172 *et seq.*; with a remark to the contrary by BREMI/LIEBETANZ, Kann man ein Prioritätsrecht 'verbrauchen'?, 2004 Mitteilungen der deutschen Patentanwälte (Mitt.) 148.

[9] An unfounded thesis explicitly contradicted in the EPO decision dated November 9, 2005 – T 05/05 (*cf.* below).

from the priority is exhausted with respect to the initial claim of priority is offered in Article 87(4) EPC. This standard governs the exception that a second application may be claimed as priority, even though previously an identical application (from the same applicant) was filed. The claim of priority from the second application (which is not the first application) is regarded as valid on an exceptional basis when the first application is withdrawn, dropped or rejected, and before it has been laid open to the public (and without the existence of rights). Just to such a small extent may this older application have already provided the basis for the claiming of priority rights. In the event that the applicant has already claimed priority from the initial application, his right to the priority is 'exhausted'.[10]

This regulation is an indication that through the declaration of the claim of priority, the right from the priority may be exhausted – an indication, but not more. This regulation excludes (only) that the applicant utilizes his further filing as the first and in this way pushes back the priority period – application for application – step by step. The scope of this regulation extends no further.

It cannot be derived from this regulation that the first application may not be claimed for different (identical) applications within the priority period as giving rise to priority. It is also incorrect to extrapolate from this regulation that the right from the priority is a right to influence by unilateral declaration which expires through its (first-time) exercise.[11] The priority right is a right to structure the legal situation. It is differentiated from the right to influence by unilateral declaration of the civil code to the extent that it may be an object of legal relations – transfer.[12]

A limitation in the exercise of the priority right is necessary where the interests of the general public are affected. The answer to the question of when the exercise of the right from priority of a patent application is used, must, to the greatest possible extent, allow for a benefit which the priority right provides for the inventor/applicant. It must be easy to manage and practical.[13] The acknowledgment of the priority right may not run contrary to the general public's interest in legal security.[14]

From this it follows that as long as the public has no knowledge of the further filing claiming priority, there is no cause for drastic concern against a repeated claiming of the priority within the period triggered by the initial application.[15] As soon as the (first) further filing is published with the reference to the claiming of priority, and as a result the general public is informed of the priority benefit of this application, no effect can result from a repeated claim of priority.[16] The right from

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[10] ULLMANN/GRABINSKI, *supra* note 6, Art. 87 marginal note 14.

[11] On the current status of the diverse opinions in the literature *cf.* WIECZOREK, *supra* note 1, 17 *et seq.*

[12] STEINBECK, Die Übertragbarkeit von Gestaltungsrechten, 40 (1994), warns justifiably of the 'coverage of legal consequences through terminology'.

[13] RUHL, *supra* note 1, marginal note 14.

[14] RUHL, *supra* note 1, marginal note 16.

[15] *Cf.* also German Federal Supreme Court, 1960 GRUR Int. 506 – *Schiffslukenverschluss*: 'Nothing stands in the way of a renewed claim of the priority, when the earlier national further application has been withdrawn.'

[16] *Cf.* also RUHL, *supra* note 1, marginal note 592.

the priority is used (for further declarations of priority) in that moment when the (first) declaration of priority is made public.[17] Should the first subsequent application be withdrawn prior to its publication or the (declared) priority be renounced prior to its publication,[18] the claim to priority for the second further filing retains its effect. Should the first (published) further filing contain no reference to the claim to priority, for example because it is (as permitted) renounced during the application procedure, the claim to priority for the second further filing does not fail in that this was originally presented as a second declaration.[19] In this case, the priority right is not exhausted. Only when the first subsequent application is made available to the public with a reference to priority is the right to (repeated) claiming of priority used.[20]

With this solution the subsequent applicant retains the flexibility to claim the priority of the first application for a variety of identical subsequent applications (in the same legal system). However, he carries the risk that with the publication of the first (priority claiming) subsequent application that he will lose the basis to carry out a flexible strategy. Should, as in the example mentioned above, both priority claiming patents be granted, only the first patent receives priority effect. There is no longer room for further formative declarations of the patent holder in which he (now) wants to record priority effect to the patent.[21]

2.2 'Abuse' of the Priority Right?

It is undisputed in patent-related case law and literature that the term of the initial application, on which the right of priority is based, should restrict numerous consecutive applications for the same invention as individually giving rise to priority. Article 4C (2) Paris Convention connects the priority period to a submission of the first application.[22] The intention of this criterion is to prohibit an applicant from

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[17] It does not have to come to a grant of patent, referred to in 1908 Blatt für Patent-, Muster- und Zeichenwesen (Bl.f.PMZ) 131 *et seq.*; *cf.* also TRÜSTEDT, Die Priorität einer Anmeldung nach deutschem Recht unter besonderer Berücksichtigung der Unionspriorität, 1959 GRUR Int. 573, 576 *et seq.*

[18] A waiver may also be explained without withdrawing the application. *See* WIECZOREK, *supra* note 1, 136. According to the remarks in the text, a waiver of the claim of priority is already exluded after the publication of the application and not only after the grant of the patent, *cf.* in this regard ULLMANN, *supra* note 1, Intro International Part, marginal note 69.

[19] Also the fact that, according to the regulations on the national internal priority, with the claim of priority, the first application is considered withdrawn (Section 40(5) German Patent Act), the additional claims to priority are allowed. This legal fiction does not eliminate the priority-claiming effect of the first application, the further destiny of which is generally irrelevant for the priority right (*cf.* also Art. 87(3) EPC, Art. 4A(3) Paris Convention).

[20] Should – as a matter exception – the second further application with a claim of priority be published first, the claim of priority for the first application is thereby exhausted. Decisive in this regard is the first publication of the notice of priority.

[21] *See* BREMI/LIEBETANZ, *supra* note 8, 2004 Mitteilungen der deutschen Patentanwälte (Mitt.) 148, 150, who want that the proprietor of a patent in an opposition proceeding is to be asked for which application, EP1 or EP2, the priority right is to be exhausted.

[22] Similarly, Art. 87 (1) EPC; Secs. 40 (1) and 41 (1) refer to a prior application.

registering numerous priority dates for the same invention consecutively. A cascade of priorities from the same source is thereby to be prohibited.[23] Two decisions of the EPO[24] bring this problem to the forefront, namely when an application is a first application in the sense of the priority right.[25] The essential facts are as follows: A and B apply for the patent EP1 dated August 1, 2000. They claim the priority from the German patent dated February 1, 2000 (N1) registered by themselves. On July 1, 2000, A registers the identical patent in the Netherlands alone (N2) and later claims its priority for the same European patent application dated March 1, 2001 EP2.

Is prior art from the period since July 1, 2000 (also) damaging to the European patent application EP2? Or in other words: is the Dutch application (N2) dated July 1, 2000 or the German application dated February 1, 2000 (N1) the first application from which the priority right is to be alone derived?

According to the opinion of the Board of Appeal of the EPO, the priority of the later identical application (N2) has been effectively claimed in the second European patent application (EP2); with respect to the earlier application N1 there was no identity of the applicant. Only such applications which were executed by the applicant himself (or his legal predecessor) are in conformance with the given requirements of Article 87 EPC, which states that, with respect to the application claiming priority, it must be the first application of the invention by the applicant. The EPO has laid down that for an effective claim to priority the application claiming and the one benefiting must not only be identical with respect to its object (material), but also with regard to the identity of the applicant (formally).[26] Conversely, an identical application which was not executed by the applicant of the further filing or his legal predecessor can not be seen as the first application in the sense of priority right. Should the (further) filing be from a different applicant, then this application is the first application for the same applicant (or his successor in title).

Teschemacher[27] objects to this legal interpretation. In his opinion, it cannot be understood from the legal situation that alongside the objective identity of the application (according to its object), that a subjective identity (with respect to the person of the applicant) must also be present. Where one requires the subjective identity, one raises the danger that through the exchange of the person of the applicant, numerous identical patent applications may be submitted consecutively and thus the priority also date could be manipulated. The identity of the applicant required by the EPO for the definition of the first application allows that through the omission of the applicant or the use of an optional third person a later (renewed) priority right

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[23] *Cf.* Art. 87 (4) EPC; Art. 4C (4) Paris Convention; *see* 1.1. above; BEIER/STRAUS, *supra* note 1, 1991 GRUR Int. 255, No. 21.

[24] Dated November 9, 2005 – T 5/05 and dated May 8, 2007 – T 788/05 – not intended for publication – available at www.epo.org.

[25] TESCHEMACHER, Wann ist eine Anmeldung ein *erste* Anmeldung im Sinne des Prioritätsrechts?, 2007 Mitteilungen der deutschen Patentanwälte (Mitt.) 536, 537.

[26] The identity of the applicant is present when the second applicant is the successor in title of the first.This is a result of the marketability of the righs fro the priority.

[27] TESCHEMACHER, *supra* note 25, 537.

may come into existence. In order to confront the danger of an abuse of the priority right, for the qualification of a patent application as being the first application it depends essentially on the material identity of the further filing. In the case of different applicants for the same invention one must assume *prima facie* that the second (non-identical) applicant of the further filing is the successor in title of the applicant of the first application because the opponent can hardly prove that the second applicant is the successor in title of the first application.[28]

Teschemacher's perspective cannot be affirmed. The term 'first application' must be defined not only with respect to the object of the application, but also with respect to the applicant. It is beyond dispute that the applicant must not necessarily be the inventor.[29] An applicant who is not the inventor is obliged to explain how he obtained the right to the patent (Article 81 EPC, Section 37 German Patent Act). An examination of this declaration does not take place. The information contained therein must conform to the truth. It falls under the precept to reveal the truth contained in Section 124 German Patent Act. The accuracy of the information is, however, according to explicit legal provisions of the patent office not examined (Section 37(1) third sentence German Patent Act). The factual examination of the patent application should not be delayed due to the determination of the inventor. In a procedure before the patent office, the applicant is considered entitled to demand the grant of patent (Section 7 (1) German Patent Act). The granting procedure is to be separate from a discussion and examination of inventorship.[30] The true inventor may assert his rights in an opposition proceeding or nullity action and bring about the revocation or a declaration of nullity of the patent (Section 21 (1), (3) German Patent Act, Section 22 German Patent Act).[31] Should the patent be revoked on this ground, the person authorized may apply for the patent anew, and to this end take the claimed priority from the unauthorized applicant (Section 7(2) German Patent Act). The notion that the legitimate applicant may assert his rights in an opposition proceeding or nullity action against an unauthorized applicant excludes the objection of missing material justification of the applicant on the basis of a report by a third party to lead to the consideration of a further state of the art.[32]

It proves to be irrelevant to the procedure, in the context of the examination of the possible protection or validity of an invention claiming priority, to demand, apart from the determination of the objective and subjective identity (where

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[28] TESCHEMACHER, *supra* note 25, 539, 540.

[29] ULLMANN, *supra* note 1, Intro International Part, marginal note 34; RUHL, *supra* note 1, marginal notes 184, 259; BEIER/STRAUS, *supra* note 1, 255, Tz. 2; ULLMANN/GRABINSKI, *supra* note 6, Art. 88, marginal note 22.

[30] SCHÄFERS, in: BENKARD (ed.), Kommentar zum Patentgesetz, Section 37, marginal note 9 (10th ed.); SEEGER/WAGNER, Offene Fragen der Miterfinderschaft, 1975 Mitteilungen der deutschen Patentanwälte (Mitt.) 108, 110.

[31] The EPC does not allow for this type of retraction (Art. 100 EPC), permits one authorized to pursue a European patent application following successful vindication (in a national court) (Art. 61(1)(a) EPC).

[32] German Federal Supreme Court (Bundesgerichtshof, BGH) dated December, 3 1991 – X ZR 101/89, 1992 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 157, 159 – *Frachtcontainer (zur Neuheitsschonfrist).*

required of the declaration of a successor in title), a more extensive decision on the legitimacy of the applicant by the patent office.[33] No notions are to be put forth in the granting procedure as to whether possibly another (earlier) identical application is to be considered as the initial application, because – as opposed to the submitted declaration of priority – a successor in title of the applicant of the second application which claims priority cannot be excluded or is even assumed.

Just as is the case with the claim of priority, its examination must be feasible and easy to handle. According to the wording of Article 87 (1): 'Any person who has duly filed an application for a patent … or his successor in title, shall enjoy … a right of priority….'.[34] It follows that only such an application may be drawn upon for the justification of the priority that was submitted by precisely this applicant or his successor in title. For applications by other applicants, priority cannot be claimed by other third-party applicants. Applications by various applicants oppose each other with respect to the state of the art.[35] International practice, for the most part, also assumes that not only the first application within the territory of the member states of the Paris Convention provides the basis, but instead that it only depends on whether the individual applicant or his successor in title claims the further filing within the priority period.[36]

Therefore, it must be stated that the term of the initial filing of an application which conforms to the provisions in Article 4 Paris Convention is not based on the absolute initial filing in the member states, but rather on the initial application of a certain applicant.[37] Concerning the examination of the right to priority, it depends exclusively on whether the identity of the applicant (or the fact of a successor in title) is, as such, legitimate. The question as to the right to the object of the invention itself is irrelevant. The priority right is a disposition right with asset value being separate from and independent of the ownership of the invention.[38]

The benefit in patent law deriving from the exercise of the priority right, which is that for the further filing the date relevant for the evaluation of prior art is moved ahead to the application date of the first application, is independent of the questions regarding the ownership of the physical object of the invention. In most cases, the right to the application of the patent coincides with the right to the object of the invention, but this must not always be the case. When considering the question which prior art is to be considered in determining the worthiness of the patent, the argument concerning the right the invention has no role to play.[39] This is also confirmed when looking at the provisions for the vindication of the patent (Section 8 German Patent Act; Article II, Section 5 Law on International Patent Treaties).

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[33] ULLMANN, *supra* note 1, Intro International Part, marginal note 70; RUHL, *supra* note 1, marginal note 629; WIECZOREK, *supra* note 1, 110 *et seq.* .

[34] Similar to Art. 4A (1) Paris Convention

[35] EPO dated November 9, 2005 – T 5/05.

[36] *Cf.* WIECZOREK, *supra* note 1, 112 *et seq.*; RUHL, *supra* note 1, marginal note 265.

[37] BEIER/STRAUS, *supra* note 1, 255, Tz. 21.

[38] ULLMANN, *supra* note 1, Intro International Part, marginal note 35; WIECZOREK, *supra* note 1, 136 *et seq.* .

[39] RUHL, *supra* note 1, marginal note 265, 629.

The formal act of applying for and claiming the priority by the applicant are not put into doubt through his lack of authorization to apply.[40] The general public has an interest in the question of the effectivity of the claim of priority, not however for the dispute concerning an internal legitimacy. The competitor wants to know which state of the art is decisive for the application benefiting from priority. The material relationship between inventor and applicant is of no interest to the general public. Therefore this is not subject to an examination through official channels.

The dispute concerning the material authorization is to be carried out between inventor and applicant. Should – according to the concerns of Teschemacher[41] – one act improperly during the explanation of the authority to place an application, be it that the initial applicant and second applicant intentionally confused their identity, be it that the second applicant usurped his right to apply, the opponent or the petitioner for nullity must supply evidence to that effect.[42] An official investigation does not take place. Far more one must assume that the formal explanation regarding the person of the applicant is also decisive for the evaluation of the application as the first application in the sense of priority right. A rule of assumption against the formally authorized applicant does not exist.

3. Conclusion

The question of a legitimate perception of rights from priority must consider the interests of the applicant of the patent in a utilization to the greatest possible extent of the benefits of the priority right as well as the interests of the general public in dependable criteria for the judgment of the priority situation.

From this derives, on the one hand, that the exercise of rights from the priority is possible for numerous further filings within the priority period and is exhausted when the first further filing with the declaration of priority is made available to the public.

On the other hand, it is observed that the identity of the application giving rise to priority with the further filing beyond the object of the invention must be given only with respect of the person of the applicant claiming priority (or his successor in title). A prior application for the same invention through other or additional persons may not be qualified as the first invention in the sense of priority right. The exami-

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[40] In vindication proceedings, an objection on the grounds of a lack of protectability (from non-authorized patent applicants) may not be raised, German Federal Supreme Court (Bundesgerichtshof, BGH), dated May 15, 2001 – X ZR 227/99, 2001 GRUR, 823, 824 – *Schleppfahrzeug*. MELULLIS, in: BENKARD (ed.), 'Kommentar zum Patentgesetz', Section 8, marginal note 5 (10th ed. 2006). Of course, the result of such proceedings can be that the priority claim was invalid. Should, however, this deficiency not be brought forward in a petition for nullity by an interested competitor, who is able to cite the state of the art for the priority period, the deficiency remains without consequence with respect to the continuance of the patent.

[41] TESCHEMACHER, *supra* note 25, 537.

[42] ULLMANN, *supra* note 1, Intro Int. Part, marginal note 71; RUHL, *supra* note 1, marginal notes 629, 630.

nation of priority is not to be concerned with the material legitimacy of the applicant of the identical invention. The patent office must assume the accuracy of the explanation provided thereto. One who, as an opponent or petitioner for nullity, claims that the person of the applicant of the prior and further application is misused in order to (for a new priority) exclude a decisive state of the art must report this and where necessary prove it.

The Experimental Use of the Patented Invention: A Free Use or an Infringing Use?

Vincenzo Di Cataldo

1. The Traditional Law: An Exemption Rule for 'Purely' Experimental Activities

Is a researcher free to use in his or her research activities an invention covered by another inventor's patent? Almost all the patent systems of the world state that anyone is free to 'play' with other people's patented inventions, provided that it is a purely experimental use. The spirit of this rule is what induces me to use the verb 'to play', meaning a research activity absolutely devoid of industrial or commercial purposes. On the contrary, if the player intends to commercialize the possible fruits of the research, the use of the patented invention is generally deemed to be an infringement of the patent.

The exemption for research activities is quite an old rule. In the United States, it dates back to 1813, having been affirmed in *Whittemore v. Cutter*.[1] The opinion, written by Justice Story, justifies the reversal of the infringement suit against a 'pure' researcher, noting that 'it could never have been the intention of the legislature to punish a man, who constructed a machine [covered by a third party's patent] merely for philosophical experiments, or for the purpose of ascertaining the sufficiency of the machine to produce its described effects.'[2] As has been said many times, such an experimental activity can in no way harm the patent holder's economic interests. And U.S. courts still adhere to said principle, although it has never been expressly stated in patent law.

Article 27(b) of the Luxembourg Convention on the Community Patent of 1975-1989 ('CPC'), which has not entered into force, states that 'acts done for experimental purposes relating to the subject matter of the patented invention' do not constitute patent infringement.

Most European countries have a similar provision, taken from CPC[3] or developed by courts. In Italy, a research exemption was introduced in Article 1 of the

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1 *Whittemore v. Cutter*, 29 F. Cas. 1120 (C.C.D. Mass. 1813).

2 *Id.*, at 1121.

3 As I have said, the Community Patent Convention has not entered into force. To implement a Community patent system, in 2001 the EC Commission wrote a draft regulation on the Community Patent, mainly structured along the lines of the CPC; but this regulation has not yet been enacted either. For the reasons for the stalemate *see* DI CATALDO, From the European Patent to a Community Patent, 8 Colum. J. Eur. L. 19 (2002). Nonetheless, in the last decades of the past century many European states amending their national patent laws in compliance with the Munich Convention on the European Patent introduced some rules taken from the Community Patent Convention.

Patent Law of 1939 as amended in 1979 and is now expressed by Article 68(1) lit.a of the Code of Industrial Property Rights of 2005.[4]

The wording of most of the European national statutes is quite open. It generally exempts 'experimental use' and does not specifically lay down strict limits to the exemption rule.[5] But the history of the law and its application show that the experimental use exemption seems to have a very narrow structure everywhere, as has already been stressed. The exemption applies only to 'purely' experimental activities. If researchers are somehow interested in the commercial exploitation of the possible fruits of their research, their use of a patented invention tends to be considered an infringement of the patent. Therefore, what has been said for the U.S. is generally true: 'within this university of cases, the experimental use defense has been frequently raised, but rarely sustained.'[6]

2. Looking for the Rationale of the Traditional Law

The rationale underlying the above indicated rule is unclear. While it may have been fair and efficient two centuries ago when it was created for the U.S., it is unclear whether the rule is still consistent with today's world needs, *i.e.*, whether it can be considered a fair and efficient rule today, or whether efficiency considerations should lead to a change in the law.

The scenario is somehow complicated (or perhaps clarified) by the fact that many countries requiring an administrative market authorization for new and even generic drugs have recently enacted a special rule expressly allowing clinical trials of the generic drug even before the expiry of the patent on the pioneer drug. The relationship of these special laws with the general exemption is unclear. With a view to their interpretation it may be useful to understand whether these special laws are consistent with the rationale of the general research exemption or whether they follow only particular considerations.

The bundle of questions indicated above is not only of theoretical importance**.** As we will see, the way we shape the experimental use exemption is directly affecting the activities of all researchers – public and private, university and industrial. Clearly, it thus also directly affects the flow of new inventions, even though it is quite difficult to measure the exact extent of this effect. And lastly, it affects our well-being.

Many scholars have already stressed that the use of patented inventions for research purposes – though very important in every field – is particularly sensitive

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[4] Code of Industrial Property Rights, adopted on February 10, 2005 and published on March 4, 2005 in the Italian Official Journal No. 52 as Legislative Decree No. 30/2005.

[5] With the interesting exception of the Netherlands and Portugal, whose laws expressly permit only the purely experimental use of the patented inventions. Their words concern the use that is 'solely serving for research' (Dutch Law) or 'exclusively carried for testing or experimental purposes' (Portuguese Law).

[6] EISENBERG, Patents and the Progress of Science: Exclusive Rights and Experimental Use, 56 U. Chi. L. Rev. 1017, 1021 (1989).

in biotechnology,[7] a field considered strategic for the advancement of the quality of life in the near future. Therefore, it is fair to say that the answer we give to this legal problem will directly affect the quality of life of future generations.

3. Experimental Uses for Regulatory Purposes: The New Law

When we talk of experimental uses, we talk of many different cases,[8] and it is unclear whether an identical rule can be applied to them all. Perhaps the case most frequently decided in the last few years has been the one, just mentioned above, involving a patented drug or agrochemical (*i.e.*, a product that needs an administrative license to be sold), approaching the end of the patent term. Competitors of the patent holder apply for administrative approval to commercialize the patented product, and in order to start selling the product right after the expiry of the patent, they apply when the patent is still in force. They submit a sample of the product for the administrative authority to conduct the tests and/or submit the results of the clinical tests they performed themselves. But the very act of submitting or testing the product is considered use of the patented invention; so the patent holder can sue them for infringement.

At first, in these cases, the courts decided almost everywhere that the use of the patented product for regulatory purposes was to be considered an infringement and that it could not be exempted as experimental use. This was the approach taken in U.S. in the well-known decision of the Court of Appeal for the Federal Circuit in *Roche v. Bolar*.[9] Indeed, this is a use intended for commercial purposes, whereas the experimental use that is considered free is only the 'purely' experimental use.

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[7] MUELLER, No 'Dilettante Affair': Rethinking the Experimental Use Exception to Patent Infringement for Biomedical Research Tools, 76 Wash. L. Rev. 1 (2001); THOMAS, Protecting Academic and Non-Profit Research: Creating a Compulsory Licensing Provision in the Absence of an Experimental Use Exception, 23 Santa Clara Computer & High Tech. L.J. 352 (2007); BAUER, Why Not Try the Experiment and Stop Pointing the Finger? Modern University Research Unaffected by a Narrow Experimental Use Exception, 24 Temp. Envtl. L. & Tech. J. 122 (2005); YUN-HYOUNG LEE, Inverting the Logic of Scientific Discovery: Applying Common Law Patentable Subject Matter Doctrine to Constrain Patents on Biotechnology Research Tools, 19 Harv. J.L. & Tech. 79 (2005).

[8] A very insightful analysis of European cases of the last two decades of the last century has been made by CORNISH, Experimental Use of Patented Inventions in European Community States, 29 IIC 735 (1998). *See* also GILAT, Experimental Use and Patents, VCH, Weinheim, 1995, and, not only for a review of the Italian system, GALLI, L'uso sperimentale dell'altrui invenzione brevettata, 46 Rivista di diritto industriale 1996, I, 17. More recently, COOK, Responding to concerns about the scope of the defence from patent infringement for acts done for experimental purposes relating to the subject-matter of the invention, Intellectual Property Q. 193 (2006).

For a good analysis of the research exemption in Canadian and Indian Law *see* HELM, Outsourcing the Fire of Genius: the Effects of Patent Infringement Jurisprudence on Pharmaceutical Drug Development, 17 Fordham Intell. Prop. Media & Ent L.J. 189 (2006).

[9] *Roche Products, Inc. v. Bolar Pharmaceutical Co., Inc.*, 733 F.2d 858 (1984). In Italy, in the same direction, Tribunale Torino, 24 settembre 1984, 13 Giurisprudenza annotata di diritto industriale, 623 (1984);

This doctrine allows the producer of generic drugs and of generic agrochemicals to effectively enter the market only with a certain delay, rather than at the very moment of the expiry of the patent. This delay coincides exactly with the time both – at different points in time – need to undergo the administrative procedure to obtain the approval for the commercialization.

The two competitors, patent holder and generic drug producer, were originally in the very same situation: both had to 'waste' the time needed for the administrative procedure. The former had to subtract this time from the term of the exclusive right conferred to him or her by the patent, since the patent holder effectively did not have twenty years of exclusive right but twenty years minus the time spent on the procedure for the administrative authorization needed to sell the product. The latter could not enter the market immediately after the expiry of the patent but had to wait for the time necessary to obtain the administrative authorization to sell the product.

I have used the past tense because, as is universally known, things have radically changed. New laws have been enacted everywhere to restore the time wasted by the patent holder for administrative authorization, though not completely and not in an identical way in all countries.[10] The different details of these laws can be considered irrelevant for the purposes of this study. However, once the patent holder has restored – even if only in part – the legal duration of his or her exclusive right, the producer of the generic drug expects to enter the market immediately after the expiry of the patent. Needless to say, sketching the situation from the point of view of the two competitors, we have to keep in mind that behind the producer of the generic drug we should see the interest of an effective public domain on the inventions disclosed by expired patents. It is absolutely unreasonable that the exclusive right should remain in force after the expiry of the patent as a side-effect of administrative rules.

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[10] In the U.S., the law directly restores the patent term. *See* Drug Price Competition and Patent Term Restoration (Hatch-Waxman) Act, Pub. L. No. 98-417 (1984). It is generally recognized that the Hatch-Waxman Act has given a significant impulse to the development of the generic drug industry, UNDERSTAHL, Authorized Generics: Careful Balance Undone, 16 Fordham Intell. Prop. Media & Ent. L.J. 366 (2006); or, according to others, it has 'created the generic drug industry', HELM, Outsourcing the Fire of Genius, *supra*, note 8.

In Europe, the E.C. Member States grant a Supplementary Protection Certificate under Regulation 1768/92/EC. This is quite a strange method, chosen in Europe just for "strategic" reasons. Some Member states had prolonged the time limit of national patents in terms different from each other. The E.C. Commission correctly saw the danger given to the uniformity of the law in the Common Market by these national laws; but the E.C. Commission, which intended to cancel the power of Member states to prolong the time limit of national patents, could not – and cannot – modify herself the time limit of European or national patents. At this point, the E.C. Commission decided to give the Member states the power to grant a new kind of industrial property right (called Supplementary Protection Certificate) designed by a new E.C. Regulation, prohibiting any other way of prolonging the time limit of the patent.

And so, it is not strange at all that in many countries (in the U.S.[11] and E.C.[12] among others), new laws have been enacted expressly stating that the testing activity required by regulatory purposes can be conducted even before the expiry of the patent. As a matter of course, the production and sale of the generic drug or agrochemical shall be allowed only after that expiry.

For the case in question, there is a special law almost everywhere allowing the use of the patented product which can be interpreted in two opposite ways as to its counter-effects on the presence of a general experimental use exemption. The special rule can be seen as part of a mosaic, being a confirmation of a general rule of exemption for all experimental uses, even those that are not purely experimental. It can also be seen as an exceptional rule, attesting the absence of a general exemption, and leaving the exemption rule only for the purely experimental uses. To choose between the two different perspectives, we should know more about the different interests implicated in the problem.

At least in the U.S., courts have read quite extensively the special statutory texts as freely allowing the use of patented inventions for regulatory purposes. The rule has been interpreted to cover not only data gathering on drugs but also the comparable testing of medical devices. In this perspective, the Supreme Court has expressly stated:

> [T]the statutory text makes clear that it provides a wide berth for the use of patented drugs in activities related to federal regulatory process. […] This necessarily includes preclinical studies of patented compounds that are appropriate for submission to the FDA in the regulatory process. There is simply no room in the statute for excluding certain information from the exemption on the basis of the phase of research in which it is developed or the particular submission in which it could be included.[13]

In the case in question, the presumed infringer used the patented invention not to supply information to the FDA, but to identify the compound that was the best drug candidate for future clinical testing.

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[11] Thanks to the Drug Price Competition and Patent Term Restoration (Hatch-Waxman) Act (1984), 35 U.S. C. § 271(e)(1), that, overruling *Roche v. Bolar*, now reads: 'It shall not be an act of infringement to make, use, offer to sell, or sell within the Unites States or import into the United States a patented invention … solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use or sale of drugs or veterinary biological products'.

[12] According to Article 10(6) of the Directive 2001/83, as inserted by Article 1(8) of the Directive 2004/27 for human medicinal products, and to Article 13(6) of the Directive 2001/82, as inserted by Article 1(6) of the Directive 2004/28 for veterinary medicinal products, 'conducting the necessary studies, tests and trials' needed for regulatory purposes 'shall not be regarded as contrary to patent-related rights or to supplementary protection certificates for medicinal products'. Both Directives have been implemented by most EC Member States.

[13] *Merck KGaA v. Integra Lifesciences I, Ltd.*, 545 U.S. 193 (2005). For further details on this point *see* COGGIO, The Scope of 'Safe Harbor' Provision of the Hatch-Waxman Act in View of Merck v. Integra Lifesciences, 16 Fordham Intell. Prop. Media & Ent. L.J. 10 (2005); MOTA, Merck v. Integra Lifesciences – The Supreme Court protects the use of Patented Compounds in Preclinical Studies, 29 Hamline L. Rev. 54 (2006).

Nonetheless, courts tend to reaffirm a strict interpretation of the general research exemption, as exemplified in the U.S. Court of Appeals for the Federal Circuit (C.A.F.C.) in Madey v. Duke University.[14] It is interesting to note that in this case, the question of infringement of the patent was raised in quite an atypical way. And the ruling, not by chance, has been widely debated.[15]

The Court described the facts as follows:

> In the mid-1980s Madey was a tenured research professor at Stanford University. At Stanford, he had an innovative laser research program (…) In 1988 (Madey) left Stanford for a position in Duke's physics department. In 1989 Madey moved his free electron laser ('FEL') research lab from Stanford to Duke (…) During his time at Stanford, Madey had obtained sole ownership of two patents practiced by some of the equipment in the FEL lab (…) At Duke, Madey served for almost a decade as director of the FEL lab (…) However, a dispute arose between Madey and Duke. Duke contends that, despite his scientific prowess, Madey ineffectively managed the lab. Madey contends that Duke sought to use the lab's equipment for research areas outside the allocated scope of certain government funding (…) Duke sought to remove (Madey) as lab director (and) eventually did remove Madey as director of the lab in 1997 (…) As a result of the removal, Madey resigned from Duke in 1998. Duke, however, continued to operate some of the equipment in the lab. Madey then sued Duke for patent infringement of his two patents, and brought a variety of other claims.[16]

Duke raised, *inter alia*, the common law exception for patent infringement liability. Following precedent, the Court stated that the experimental use defense is

> very narrow and limited to 'actions performed for amusement to satisfy idle curiosity, or for strictly philosophical inquiry'. Further, use does not qualify for the experimental use defense when it is undertaken in the 'guise of scientific inquiry' but has 'definite, cognizable, and not insubstantial commercial purposes' (..) Use is disqualified from the defense if it has the slightest commercial implication.[17]

Commentators on the ruling have suggested that 'the courts have considered even a minimal flavor of commerciality sufficient to take the accused activity outside the realm of protected experimental or research use.'[18]

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[14] *Madey v. Duke University*, 307 F.3d 1351 (Fed. Cir. 2002).

[15] ROWE, The Experimental Use Exception to Patent Infringement: Do Universities Deserve Special Rules?, 57 Hastings L.J. 921 (2005-2006).

[16] *Madey v. Duke*, at 1352-53.

[17] *Madey v. Duke*, at 1362 (quoting *Embrex, Inc. v. Service Engineering Corp.*, 216 F.3d 1343, 1355 (Fed.Cir.2000)).

[18] MUELLER, No 'Dilettante Affair', *supra*, note 7, 18.

4. Experimental Uses on the Patented Product and Experimental Uses with the Patented Product

Other cases of experimental uses concern different facts. Perhaps a good way of looking at them is to distinguish between experimental uses 'on' the patented product and experimental uses 'with' the patented product.[19]

Sometimes the researcher is simply trying to repeat the operations taught by the patent to check whether the procedure gives rise to phenomena or effects not recorded in or not comprised by the patent holder. Sometimes he or she is investigating a patented product (*e.g.*, a new chemical compound or a new drug) to assess new uses, new therapeutic indications, or better conditions of use, such as better dosages, possibilities to minimize side-effects, and so on. These are experimental uses 'on' the product.

Sometimes, however, the researcher is using the patented product in part as a research tool – *e.g.*, to test different products, to investigate their reactions, and so on. These are experimental uses 'with' the patent.

It is felt that the second group – research 'with' the product – should be left out of the scope of experimental uses. When the product is a research tool, its use as a research tool[20] seems not to be an 'experimental use' but simply the normal 'use' of the product. And it is quite probable that the same has to be assumed when the patented product is not a research tool itself but is used as such. A complete analysis of these assumptions would need a dedicated study. For this reason, I will abstain from considering them here, and notwithstanding the difficulties in drawing a clear line between research on the product and research with the product, I will leave research with the product out of the following considerations. This study will proceed keeping in mind only research on the product and, of course, leaving aside any peculiarities that could interfere with the study of a pure case. Thus, I will not consider the possibility that the researcher, despite not being the patent holder, has some kind of entitlement in the research, whether it be a licensee, via a voluntary or compulsory license, or the holder of a use patent on the product.

5. The Experimental Use and the Role of University

A first set of considerations is to be drawn, in my view, from the history of the research exemption rule. This rule, although directed to all research actors and industry as well, was created to allow universities to conduct their research activities freely. It was created at a time, only a few decades ago but in a world

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[19] MUELLER, No 'Dilettante Affair', *supra*, note 7, 39. *See* also Judge Pauline Newman's dissenting opinion in *Integra Lifesciences I, Ltd. v. Merck KGaA*, 331 F.3d 860 (Fed. Cir. 2003).

[20] Assuming, of course, (and for reasons of space it is not possible here to revise this doctrine) that a research tool can be per se the object of a patent, as is generally said today. *See* BAUER, Why Not Try the Experiment and Stop Pointing the Finger?, *supra*, note 7; MUELLER, No 'Dilettante Affair', *supra*, note 7; PFAFF, 'Bolar' Exemptions – A Threat to the Research Tool Industry in the U.S. and the E.U.?, 38 IIC 258 (2007); YUN-HYOUNG LEE, Inverting the Logic of Scientific Discovery, *supra*, note 7, 79.

very far and different from the present one, when universities were (if not all, at least most) just 'academies' – *i.e.*, structures not market-oriented but interested only in enriching knowledge with no involvement in industrial and commercial applications of their activities or in practical life. At that time there were no ties between university and industry, or rather, such ties were very scarce. There was no reason to imagine that the results of a university's research activities would enter the market.

An initial question now arises: are our universities still such out-of-the-world structures? And secondly, are we still interested in only fostering the free play of universities, or do we think that universities are or should be serious instruments of not only scientific but also technical progress?

The answer to both questions is not in doubt. Universities, looking for the financial resources they need to fulfill their mission, urge their researchers to dedicate themselves to research projects that promise industrially and commercially useful results. 'Academic research is not "philosophical inquiry", in the courts' 21st century understanding of that term, but rather a means to advance the "legitimate business objectives" of a university.'[21] And, although aware of the need to leave some free space for that wonderful gift of the gods that we call serendipity, today's world looks at universities as important players in the chessboard of technical progress, actively involved in research programs which are very frequently, if not always jointly crafted and developed with industry.

In this new scenario, the rule that authorizes research on patented inventions only when they are purely experimental ones is quite a useless rule: such activities are absolutely marginal and no one thinks they should regain space. A more general research exemption rule seems absolutely consistent with the new role the university has in today's research system.

Giving the research exemption a more comprehensive scope than the commonly asserted law is the approach that better rewards the wonderful, professional research actor that is now the university,[22] a complex whose principal mission is just research – together with a kind of education strictly linked to research; the other educational actors – schools – are not active in research. The way we shape the experimental use exemption is clearly and directly affecting the way we restrict or enlarge the field of activity of the university. Accordingly, we choose whether to fully use or under-use the research capability of the university. Needless to say, this is important both generally and in the interest of the university. On this point, the interests of the university seem absolutely ambiguous and paradoxical.[23] As a researcher, the university could be interested in a larger research exemption, but by contrast, as a patent

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[21] EISENBERG, Patent swords and shields, 299 Science 1018, 1019 (February 14, 2003).

[22] This is notwithstanding the fact that the law does not address directly nor exclusively the research activity of the university, and does not distinguish, as to the applicable rule, between industrial and university research.

[23] RITCHIE DE LARENA, What Copyright teaches Patent Law About 'Fair Use' and Why Universities Are Ignoring the Lesson, 84 Or. L. Rev. 805 (2005).

holder[24] could also be interested in a more strict research exemption. Once more, by enriching or reducing the field of action of the university, we enrich or reduce the flow of new inventions.

6. New Inventions Blossom from Existing Inventions

The case for a broader research exemption can count on some other and, from my point of view, impressive reasons. The research system is now a well-integrated system. Today, much more than yesterday, new inventions are developed from existing inventions. Today, much more than yesterday, we must acknowledge the truth of Newton's aphorism: 'If I have seen farther, it is by standing on the shoulders of giants.'[25] Moreover, today, almost all inventions are covered by a patent and the idea not to patent an invention seems to be absolutely extravagant.

Consequently, the way we shape the experimental use exemption is directly affecting the flow of new inventions to a greater extent than in the past. If we reserve all research uses of the patented inventions to each patent holder, we will stop other researchers' activity on each patented invention, and there will be only one researcher per patent[26] actively conducting more or less research on it – as we shall see later, it is less, not more. Even considering that someone might simply ignore the ban, it is correct to assume that, as a matter of fact, we will have substantially reduced the number of researchers and accordingly, we will have reduced the prospects of new inventions.

On the contrary, if any research activity is free, even on patented inventions, we can hope that a greater number of people could invest in research programs on the inventions of others. Even if many researchers will abstain from entering this field, knowing that the previous patent could hinder their use of any second invention, we can reasonably assume that more researchers are likely to investigate existing inventions; hence more new inventions are likely to stem from previous ones. And there can be no doubt as to what is preferable in the public interest.

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[24] Universities are now everywhere (in the U.S. there has been a dramatic evolution in this direction, starting from the Bay-Dohle Act of 1985) important players in the patent system, keeping in their portfolio outstanding pools of patents and tending to become more aggressive in enforcing their patents in court. Precisely for this reason some scholars think that it is not in the university's interest to have a larger research exemption, since such a rule would endanger the flow of royalties they keep from their patents, ROWE, The Experimental Use exception to Patent Infringement, *supr*a, note 15.

[25] On this superb aphorism *see* the wonderful book by ROBERT K. MERTON, On the Shoulders of Giants (1965).

[26] The assumption is true, in my view, even considering the possibility of licensing the patent. Licensor and licensee can be considered, for the problem at hand, a unique pole.

7. The Patent Holder is Not (or Not Always) the Best Researcher on His or Her Own Invention

Let us look at the public interest from a different perspective: is it really true that the patent holder is the best researcher on his or her own patented invention? New inventions, we know, stem from existing inventions. Suppose that – according to the traditional rule – the experimental use of the existing inventions is reserved to the patent holder. From a purely technical point of view, the patentee may seem the best candidate for new developments. After all, he or she is generally the person who knows the invention best. Indeed, almost every patent holder researches his or her patent. But it is difficult to think that he or she will be particularly active in new research aiming at surpassing the first invention. The inventor will try to improve the invention but will carefully refrain from developing new inventions that could displace the existing one. The inventor will block, try to slow down, or at least decrease the pace of technical progress – at least, until he or she has exploited the first invention to the fullest, extracting all possible payback from it.

This is more or less true according to the structure of the market. The more competitive the market is, the more the patent holder will have a stimulus to outpace his or her invention because it is always possible that a competitor will do so. The more concentrated the market is, the less the inventor will be interested in investing in new developments since there is little chance that someone else will outstrip the patented invention. We all know that truly competitive markets exist almost exclusively in economics textbooks and that most real markets are quite concentrated. This means that the propensity of patent holders to invest in research on their inventions cannot be considered, generally speaking, very high.

In other words: experimental use of an invention is always a messenger of death for it, a first step towards its burial. But the patent holder who, according to the traditional rule, is the only researcher entitled to this activity is the person least keen to give the invention the kiss of death. If we really want new inventions to blossom from existing inventions, we have to give freedom of research to other researchers.

8. The Traditional Exemption Rule is Not Essential to a Strong Defense of the Patent

Now I would like to pose a different question. Is the traditional rule, the one exempting from liability for patent infringement the experimental use of the patented invention only if this use is not directed to industrial and commercial purposes, essential to a good, strong defense of the patent?

My answer is no. Suppose that a researcher (different from the patent holder), playing around a patented invention, conceives a new invention. If the use of this new invention involves the use of the previous one (as will quite frequently be the case), the use of the second invention infringes the first patent. The law gives perfect protection to the first invention, and there is no need to prevent the experimental use of the first invention if the use of the second invention is prevented by the very existence of the first patent. And the existence of two patents, the second being

'dependent' on the first (in the sense this word has in patent law), will distribute the merits and benefits of the two inventions between the two inventors.

In this case, a rule giving the patent holder the right to exclude competitors from any experimental use of the invention seems useless from the point of view of the patent holder. Such a rule would needlessly prevent research activities, as the patent holder can block the subsequent industrial and/or commercial use of the new invention. Moreover, the rule seems dangerous from the point of view of the public interest, because (as previously stated) it risks reducing, and indeed actively reduces the flow of new inventions.

Conversely, if the use of the new invention conceived through the experimental use of a previously patented invention does not involve the use of the first invention, there will be no infringement of the first patent. But it is not easy to understand why the law should block the creation of the second invention by affirming the unlawfulness of the activity that has led to it, *i.e.*, the experimental use of the first invention.

To focus on this problem we have to assess the real structure of the patent. If we look at the patent from a proprietary perspective, *i.e.*, if we look at the patent as an exclusive right to 'any' use of the invention, it follows that the experimental use of the invention is included among the uses reserved to the patent holder.

On the contrary: If we see the patent only as a bundle of special exclusive rights designed only to create an incentive to inventive activity; if we conceive the exclusive right given by the patent as only an exclusive right over industrial and commercial uses of the invention; if we acknowledge that giving the patent holder the exclusive right over industrial and commercial uses of the invention has nothing to do with giving him or her not a tool to produce, sell and use the invention as a monopolist, but the power to control the flow of new inventions, even of those *not involving* the use of his or her invention, we have no reason in any of these cases to reserve to the patent holder the experimental use of the invention.

9. Intellectual Property is Not Just Property

The stressed alternative above is well-known to scholars in intellectual property law.[27] It has been said many times that the word 'property,' generally used to indicate the special institutions we call patents, trademarks and so on, cannot be taken literally. It does not mean that the right holder has an exclusive right over all the possible uses of his or her intellectual property. It simply means that the right holder has an exclusive right over some uses of the intellectual property and only over the uses that must be indicated by the special laws creating these special exclusive

[27] *See*, among others, GHIDINI, Intellectual Property and Competition Law – The Innovation Nexus, Edward Elgar, Cheltenham, 2006; LEMLEY, The Modern Lanham Act and the Death of Common Sense, 18 Yale L.J. 1687 (1999), and LEMLEY, Property, Intellectual Property, and Free Riding, 83 Tex. L. Rev. 1031 (2005). The (obvious) difference between 'property on tangible goods' and 'intellectual property' is underlined by the economic analysis of law, POSNER, Intellectual Property: The Law and Economics Approach, 19 J. Econ. Persp. 59 (2005). Suffice it to remember the existence of a term of the IP rights and the doctrine of 'fair use'.

rights (and not by the law of property which has nothing to do with intellectual property).

Therefore, when interpreting intellectual property law – in our case patent law – we should avoid any overprotection, *i.e.*, the attribution to the right holder of rights and prerogatives that are not functional to the goals of the law. If the goal of patent law is to foster the creation of inventions, giving the inventor the exclusive right over the industrial and commercial use of his or her invention, we should acknowledge that the experimental use of the patented invention must be left free to all and is not part of the exclusive rights given by the patent to the patent holder.

Interpreting Exceptions in Intellectual Property Law

Henrik Holzapfel and *Georg Werner*

1. A Singular Ghost

German and European civil-law theory, and intellectual property law theory in particular, are being haunted by a ghost. One you, the reader, have surely come across. It is the postulate that exceptions should only be interpreted narrowly or according to their wording[1]. This is often referred to as '*singularia non sunt extendenda'*, '*exceptio stricti juris'* or '*exceptio est strictissimae interpretationis'*. For the sake of brevity, we shall refer to it here as the '*singularia* postulate'.

As anyone who knows him is aware, Professor Straus treats dogma disguised as incontestable truths with a healthy dose of skepticism. He always attempts to weigh up the interests of all parties involved in a particular case, taking all aspects thereof into account. We can therefore safely assume that he would critically assess the *singularia* postulate,[2] something this paper will also attempt to do. In this regard, we particularly aim to examine whether the *singularia* postulate finds justification in specific aspects of intellectual property law.

2. 2. Origin and Proliferation

2.1 Roman Law

The principle whereby exceptions should be interpreted narrowly has its roots in Roman law. In roman legal sources, particular laws are referred to as '*jus singulare'*. It was prohibited to apply these analogously.[3] However, there always appeared to be a lack of certainty regarding the concept of '*jus singulare'* in those areas where Roman law was adopted, as it was not comprehensible why in

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[1] *See*, for example, German Federal Supreme Court (Bundesgerichtshof, BGH), November 6, 1953, I ZR 97/52, 1954 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 216, 219 – *Romfassung*; July 8, 1993, I ZR 124/91, 1994 GRUR 45, 47 – *Verteileranlagen*; January 16, 1997, I ZR 9/95, 1997 GRUR 459, 463 – *CB-infobank I*; MELICHAR, in: SCHRICKER, Urheberrecht, before Sec. 44a *et seq.* German Copyright Act, note 15 (3rd ed. 2006); NICOLINI, in: MÖHRING/NICOLINI, Urheberrechtsgesetz, Sec. 45 German Copyright Act, note 2 (2nd ed. 2000); NORDEMANN, in: FROMM/NORDEMANN, Urheberrecht, before Sec. 45 German Copyright Act, note 3 (9th ed. 1998).

[2] *Cf.*, for example, STRAUS, Schranken der Verwertungsrechte im italienischen Urheberrecht, 1980 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 355-357.

[3] MUSCHELER, Singularia non sunt extendenda, in: DRENSECK/SEER (ed.), Festschrift für Heinrich Wilhelm Kruse zum 70. Geburtstag, 135, 136-137 (2001).

these sources particular provisions qualified as '*jus singulare*' and others did not.[4]

2.2 Singularia Postulate in German Civil Law

The *singularia* postulate has undergone remarkable development in civil law rulings of the German Federal Supreme Court. As recently as in 1951, the German Federal Supreme Court acknowledged the *singularia* postulate as a binding rule of law that prohibited judges from applying exceptions analogously.[5] In a series of decisions subsequently issued until 1988, the Court no longer accepted the *singularia* postulate as a binding rule of law, but did accept it as an argument against applying provisions analogously.[6] Finally, in another series of decisions, the last of which was issued in 2006, the Court mentioned the *singularia* postulate, but ultimately decided against it, *i.e.* rules qualifying as exceptions were interpreted broadly or applied analogously.[7] Apparently, case law eroded the purely formal argument of the *singularia* postulate in favor of true substantive arguments, until the *singularia* postulate became a mere non-committal set phrase.

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[4] MUSCHELER, *id.*, 137-139. Probably due to its Roman-law origins, the *singularia* postulate is still in force in modern-day Italy. Art. 14 Preleggi Codice Civile, for example stipulates the following: 'Le leggi penali e quelle che fanno eccezione a regole generali o ad altre leggi non si applicano oltre i casi e i tempi in esse considerati', which translates as 'criminal law provisions or those that stipulate an exception from general rules or other provisions may not be applied to cases and periods other than those to which they refer.' However, it should be noted that Art. 14 Preleggi Codice Civile does not have great argumentative significance in Italian case law and is widely criticized in Italian legal literature. *Id.*, at 144-146. The prohibition set forth in Art. 14 Preleggi Codice Civile to apply criminal provisions beyond their literal meaning or retroactively to the detriment of the perpetrator ('*nulla poena sine lege scripta*'), also echoes in German law, namely in Art. 103(2) German Constitution and Sec. 1 German Criminal Code. However, this article does not further pursue the interpretation of criminal law.

[5] German Federal Supreme Court (Bundesgerichtshof, BGH), December 15, 1951, II ZR 108/51, 1952 Neue Juristische Wochenschrift (NJW) 223, 223. However, in this case the *singularia* postulate was not brought forward as the only argument against applying a provision analogously.

[6] German Federal Supreme Court (Bundesgerichtshof, BGH), June 21, 1951, III ZR 173/50, 1951 Neue Juristische Wochenschrift (NJW) 762, 762; May 18, 1953, IV ZR 126/52, 1953 Neue Juristische Wochenschrift (NJW) 1545, 1546;, April 7, 1965, 1965 Neue Juristische Wochenschrift (NJW) 1477, 1479; November 2, 1988, VIII ZR 121/88, 1989 Neue Juristische Wochenschrift (NJW) 461.

[7] German Federal Supreme Court (Bundesgerichtshof, BGH), June 20, 1951, GS Z 1/51, 1951 Neue Juristische Wochenschrift (NJW) 599, 600; February 5, 1952, GS Z 4/51, 1952 Neue Juristische Wochenschrift (NJW) 458, 458; November 19, 1957, VIII ZR 409/56, 1958 Neue Juristische Wochenschrift (NJW) 303, 304; December 2, 2005, V ZR 35/05, 2006 Neue Juristische Wochenschrift (NJW) 990, 991; *see* also German Federal Labor Court (Bundesarbeitsgericht, BAG), April 6, 1955, 1 ABR 25/54, 1955 Neue Juristische Wochenschrift (NJW) 886, 886; August 25, 1983, 6 ABR 52/80, 1984 Zeitschrift für Wirtschaftsrecht (ZIP) 84, 86.

It should also be noted that, in a judgment passed in 1978, the German Federal Constitutional Court found that there was no legal rule in the German legal system that made restrictive interpretation of exceptions mandatory.[8]

The *singularia* postulate is unanimously rejected in both German civil law and in German legal methodology.[9] *Canaris* formulated this rejection as follows:[10] 'Rarely has a misguided rule created so much harm than the assertion that, as a rule, exceptions may not be applied analogously; case law has repeatedly invoked this assertion, thus saving itself the trouble of having to provide a more detailed reasoning.'

2.3 Singularia Postulate in German Intellectual Property Law

2.3.1 Copyright Law

The *singularia* postulate issue is most commonly raised in German copyright law. The German Copyright Act grants extensive protection to the authors of protectable works, covering both their intangible and pecuniary interests. However, this protection is undermined by a relatively large number of provisions curtailing authors' protective interests in favor of public interest in access and exploitation.[11] The *singularia* postulate is often mentioned in connection with the interpretation of such exemptions under copyright law.

2.3.1.1 Case Law

Supreme court copyright case law demonstrates the remarkable rise and fall of the *singularia* postulate. In earlier decisions, in particular, the German Federal Supreme Court ruled quite apodictically that restrictions of authors' rights constituted exceptions and therefore had to be interpreted narrowly. According to the court, exemptions under copyright law could in rare cases be analogously

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[8] German Federal Constitutional Court (Bundesverfassungsgericht, BVerfG), February 2, 1978, 2 BvR 406/77, 1978 Neue Juristische Wochenschrift (NJW) 1149, 1150. Likewise, in its decision of February 9, 2000 (1Z BR 149/99, 2000 Neue Juristische Wochenschrift (NJW) 1875, 1876), the Bavarian Highest Regional Court (Bayerisches Oberstes Landesgericht) ruled that exceptions do not always have to be interpreted narrowly, but may be applied analogously within the limits of the law's intent.

[9] LARENZ, Methodenlehre der Rechtswissenschaft 355-356 (6th ed. 1991); MÜLLER, Juristische Methodik 166 (2nd ed. 1976); BYDLINSKI, Juristische Methodenlehre und Rechtsbegriff 79, 81, 440 (2nd ed. 1994); ENGISCH, Einführung in das juristische Denken 196 (10th ed. 2005); PAWLOWSKI, Methodenlehre für Juristen, note 489a (3rd ed. 1999); SCHNEIDER, Logik für Juristen 151 (5th ed. 1999); HEINRICHS, in: PALANDT, Bürgerliches Gesetzbuch, Introduction, note 53 (67th ed. 2008); WÜRDINGER, Die Analogiefähigkeit von Normen, 2006 Archiv für die civilistische Praxis (AcP) 946, 965-966; SCHOCKENHOFF, Der sachlich gerechtfertigte Grund, in: BRINKER/SCHEUING/STOCKMANN (ed.), Festschrift für Rainer Bechtold, 419, 426-427 (2006); on the grounds for rejection *see infra* 3.

[10] CANARIS, Die Feststellung von Lücken im Gesetz, 181 (2nd ed. 1983).

[11] Sections 44a *et seq*. German Copyright Act.

applied;[12] however, the judges never actually acknowledged such a case. The German Federal Supreme Court opted for a narrow interpretation of the relevant exemptions each time.

The *Verhüllter Reichstag*[13] decision (*Wrapped Reichstag*) marked the height of this development. In this ruling dated January 24, 2002, the First Senate of the German Federal Supreme Court moved the following assertion up to the first headnote of the decision: 'In principle, exemptions under copyright law should be interpreted narrowly.' However, in its grounds the Court did not derive this assertion primarily from the formal argument that exemptions under copyright law are to be interpreted narrowly due to their exceptional nature. Rather, it emphasized the fact that the author must receive a fair share in the proceeds generated with the commercial exploitation of his works, meaning that the exclusive rights to which he is entitled with regard to the exploitation of his works may not be excessively curtailed.[14] However, the Court then qualified its assertion by stating that these exemptions were the result of the legislator's balancing of legally protected interests, and that they took into account special interests of third parties that might be protected by the constitution. To interpret the exemptions, both the interests of third parties afforded protection by the exemption and those of the author must be considered.[15]

In light of this qualification, it is hardly surprising that a few months later, in its *Elektronischer Pressespiegel* (*Electronic press review*) ruling on July 7, 2002, the same division of the German Federal Supreme Court ruled that the exemptions of Section 49 German Copyright Act may be analogously applied under certain circumstances.[16] The *Elektronischer Pressespiegel* case dealt with the issue of whether provisions concerning press reviews printed on paper could also be applied to electronic press reviews. The German Federal Supreme Court concluded that they could. In its grounds, the Court based its arguments on the technical developments that have taken place since the enactment of Section 49 German Copyright Act in the 1960s. Interpretation of legal provisions should not stick to the letter of the law where there are changes to the technical framework, but should take such new cir-

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[12] German Federal Supreme Court (Bundesgerichtshof, BGH, – *Romfassung*, *supra* note 1; May 18, 1955, I ZR 8/54, 1955 GRUR 492, 496-499 – *Magnettonband*; March 17, 1983, I ZR 186/80, 1984 Neue Juristische Wochenschrift (NJW) 1108, 1109 – *Zoll- und Finanzschulen*; *Verteileranlagen*, *supra* note 1; *CB-infobank I*, *supra* note 1; May 4, 2000, I ZR 256/97, 2001 GRUR 51, 52 – *Parfumflakon*; *see* also German Federal Supreme Court (Bundesgerichtshof, BGH),April 3, 1968, I ZR 83/66, 1968 GRUR 607, 608-609 – *Kandinsky I*; Hamburg Court of Appeals (Oberlandesgericht, OLG), April 6, 2000, 3 U 211/99, 2001 Neue Juristische Wochenschrift, Rechtsprechungsreport (NJW-RR) 552, 553.

[13] German Federal Supreme Court (Bundesgerichtshof, BGH), January 24, 2002, I ZR 102/99, 2002 GRUR 605, 605-606 – *Verhüllter Reichstag*.

[14] *Id.*

[15] Likewise German Federal Supreme Court (Bundesgerichtshof, BGH), March 20, 2003, I ZR 117/00, 2003 GRUR 956, 957 – *Gies-Adler.*

[16] German Federal Supreme Court (Bundesgerichtshof, BGH), July 7, 2002, I ZR 255/00, 2002 GRUR 963, 966 – *Elektronischer Pressespiegel.*

cumstances into account – even if they were unknown to the legislator at the time it created such exemptions.[17]

In another decision in 1986, which represented an isolated view until the *Elektronischer Pressespiegel* decision (and was not even mentioned in the same), the German Federal Supreme Court ruled that the exemption of Section 51 no. 2 of the German Copyright Law (regarding quotes) may be applied analogously.[18] In its *Filmzitat* decision (*Film quote*), the German Federal Supreme Court held that, as a limitation of an author's exclusive rights, the right to quote constituted an exception and therefore as a rule had to be interpreted narrowly. However, it found that the analogous application of exemptions under copyright law were admissible in exceptional cases. Such analogy may be necessary, for example – as in the *Filmzitat* case – where there is a gap in the law and the spirit and purpose of the exception requires such gap to be filled.

To sum up: The German Federal Supreme Court understands exemptions under copyright law as exceptions that must be interpreted narrowly. According to the Court, the principle of narrow interpretation results from the intention to give authors an appropriate share in the proceeds generated with the commercial exploitation of their works. However, the German Federal Supreme Court sometimes applies exemptions analogously. The German Federal Supreme Court makes such analogous application contingent on the existence of two conditions. First, an act of use be allowed in accordance with the spirit and purpose of the exemption. Second, taking into account the principle of proportionality, reasons of public interest – which the exemption accommodates – have priority over the interests of the author.

2.3.1.2 Legal Literature

Relevant literature dealing with copyright law provides some quite different views on interpreting exemptions.

In some places – *i.e.* in older opinions predating the *Elektronischer Pressespiegel* decision of the German Federal Supreme Court – the *singularia* postulate is considered binding. Commentators insist that exemptions under copyright law are exceptions and, as such, must be interpreted narrowly. They even maintain that in case of doubt, one should always decide in favor of the author, ruling out exploitation of the work by third parties. Analogous application of exemptions were therefore completely out of the question.[19]

Other opinions based their arguments on the principle that, as a rule, exemptions must be interpreted narrowly. Express reference is also made to the *singularia* postulate as justification, *i.e.* to the exceptional nature of exemptions. However, in accordance with the *Elektronischer Pressespiegel* decision, it is conceded that in

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[17] As already stated in: German Federal Supreme Court (Bundesgerichtshof, BGH) – *CB-infobank I*, *supra* note 1.

[18] German Federal Supreme Court (Bundesgerichtshof, BGH), December 4, 1986, I ZR 189/84, 1987 GRUR 362, 363 – *Filmzitat.*

[19] NICOLINI, *supra* note 1, Sec. 45 German Copyright Act, note 2; NORDEMANN, *supra* note 1, before Sec. 45 German Copyright Act, note 3; FECHNER, Geistiges Eigentum und Verfassung 475 (1999).

exceptional cases, for example the occurrence of new technical methods of exploitation, a broader interpretation may apply and analogous application of exemptions may even be possible.[20]

The same conclusion is justified differently in other opinions. In concurrence with the *Elektronischer Pressespiegel* decision, the principle that, as a rule, exemptions must be interpreted narrowly, is derived not as much from the *singularia* postulate as from the intention to guarantee the author a fair share in the proceeds generated with the commercial exploitation of his works. In exceptional cases, broader interpretation or analogous application of exemptions was possible, for example where new technical developments or a special public interest in information or exploitation make these necessary.[21]

Finally, there are those that call for broad interpretation of exemptions as a matter of principle, claiming that works without copyright protection are the norm. According to these opinions, the exclusive rights of an author were the exception to this rule, requiring justification. As a result, the author could only be granted a limited scope of protection.[22]

2.3.2 Patent Law

The *singularia* postulate plays a more limited role in German patent law than in copyright law. Neither German patent case law nor relevant literature feels bound to the *singularia* postulate. Accordingly, exemptions under patent law may be broadly interpreted in certain cases.

The prime example for this practice is the doctrine of exhaustion of patent rights. Exhaustion is an exemption under patent law. Its theory supposes that a patented product or a product obtained directly by a patented process becomes part of the public domain if it is either placed on the market by the patent holder himself or by a third party with the former's consent.[23] For a long time the German Patent Act did not contain any provisions on exhaustion. Meanwhile Sections 9b, 9c PatG contain special criteria. However, these only refer to biotechnology inventions. So, although largely unaddressed in the Patent Act, patent law generally recognizes exhaustion as an exemption. It corresponds to the established legal view that the

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[20] MELICHAR, *supra* note 1, before Sec. 44a *et seq.* German Copyright Act, notes 15-15b; SCHRICKER, in: SCHRICKER, Urheberrecht, Sec. 51 German Copyright Act, note 8 (3rd ed. 2006).

[21] DREIER, in: DREIER/SCHULZE, Urheberrechtsgesetz, before Sec. 44a *et seq.* German Copyright Act, note 7; LÜFT, in: WANDTKE/BULLINGER, Praxiskommentar zum Urheberrecht, before Sec. 44a *et seq.* German Copyright Act, notes 1-2 (2nd ed. 2006).

[22] HOEREN, Urheberrecht in der Informationsgesellschaft, 1997 GRUR 870; *cf.* also HILTY, Sündenbock Urheberrecht?, in: OHLY/KLIPPEL, Geistiges Eigentum und Gemeinfreiheit 106, 137 (2007). HILTY, Vergütungssystem und Schrankenregelungen, 2005 GRUR 819, 823-824, claims that the *singularia* postulate was largely dismissed as a mere legend.

[23] The doctrine of exhaustion finds justification in the public need for free movement of goods and in the fact that the patent holder is guaranteed a reward: When placing the product on the market, he had the opportunity to take advantage the technical and/or financial benefits granted under the patent, *cf.* KEUKENSCHRIJVER, in: BUSSE, Patentgesetz, Sec. 9 German Patent Act, notes 142-143 (6th ed. 2003); MES, Sec. 9 German Patent Act, notes 55-56 (2nd ed. 2005).

exhaustion provisions of Section 17(2) of the German Copyright Act and Section 24 of the Trademark Act can be applied analogously in patent law. If at all, there is debate at political level (*de lege ferenda*) as to whether exhaustion should even apply beyond the scope of those sections to the placing on the market of goods outside the European Union and the European Economic Area.[24]

In parts of patent literature the *singularia* postulate is fully rejected.[25] There is also the view similar to that of more recent copyright literature that the exceptional nature of a provision is a significant indication, so that broader interpretation or analogous application of the relevant provision should be applied with caution. However, broader interpretation or analogies are not completely ruled out in the case of exceptions.[26] Finally, an earlier publication takes the view that the *singularia* postulate is binding. However, it attempts to circumvent the postulate by referring to the exemption of Section 11 no. 2 of the German Patent Act (the experimental use exception to infringement) as a 'limitation of effect' (*Wirkungsbegrenzung*) inherent to the patent rather than an exception, to which the requirement of narrow interpretation should not apply.[27]

2.3.3 Trademark Law

The *singularia* postulate has no great significance in trademark law. As far as we can see, no German or European Community court has invoked the postulate in trademark case law to date. In its interpretation of trademark law, the European

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[24] German Federal Supreme Court (Bundesgerichtshof, BGH), September 24, 1979, KZR 14/78, 1980 GRUR 38, 39 – *Fullplastverfahren*; December 14, 1999, X ZR 61/98, 2000 GRUR 299, 299 – *Karate*; November 14, 2000, X ZR 137/99, 2001 GRUR 223, 224 – *Bodenwaschanlage*; SCHAREN, in: BENKARD, Patentgesetz, Sec. 9 German Patent Act, notes 15-26 (10th ed. 2006); KEUKENSCHRIJVER, *supra* note 23, Sec. 9 German Patent Act, notes 142 169; MES, *supra* note 23, Sec. 9 German Patent Act, notes 55-61a. The German Federal Patent Court and a Technical Boards of Appeal of the European Patent Office have also stated that provisions that stand in the way of the grant of a patent, like any exclusion clause must be narrowly construed. *See* German Federal Patent Court (Bundespatentgericht, BPatG), July 28, 2000, 17 W (pat) 69/98, note 1.4.2; Technical Boards of Appeal of the European Patent Office, September 25, 1987, T 385/86, 1988 GRUR Int. 938, 939, note 3.2. However, the Enlarged Board of Appeal of the European Patent Office has held that the frequently cited principle, according to which exclusion clauses from patentability laid down in the European Patent Convention (EPC) are to be construed in a restrictive manner, does not apply without exception. *See* Enlarged Board of Appeal of the European Patent Office, December 16, 2005, G 1/04, 2006 GRUR Int. 514, 518.

[25] *See*, for example, PIETZCKER, Patentrechtliche Fragen bei klinischen Untersuchungen – eine Erwiderung, 1994 GRUR 319, 319-321; TESCHEMACHER, Buchbesprechung, 1987 GRUR Int. 61, 62.

[26] MELULLIS, in: BENKARD, Europäisches Patentübereinkommen, Art. 52 EPC, note 19 (2002); HIEBER, Die Zulässigkeit von Versuchen an patentierten Erfindungen nach § 11 Nr. 2 PatG 1981, 1996 GRUR 439, 442.

[27] CHROCZIEL, Benutzung zu Versuchszwecken als Einwand gegenüber einem Anspruch wegen Patentverletzung (Q 105), 1992 GRUR Int. 203, 205. Similarly HIEBER, *supra* note 26, 442, who contrasts exceptions with 'waivers' (*negative Geltungsanordnungen*) to which the requirements of narrow interpretation should not apply.

Court of Justice mainly emphasizes the fact that the interests of the parties involved and those of the public must be taken into account.[28]

Although mentioned in trademark literature, the *singularia* postulate is not consistently advocated therein.[29] Views also differ as to which trademark law provisions should actually be considered exceptions. Some regard trademark protection as the norm and therefore classify those provisions as exceptions that limit a trademark owner's claim for a grant or exclusive right.[30] Some commentators consider a trademark owner's exclusive right an exception to the principle of free movement of goods. For example, in the current discussion regarding the interpretation of the element of 'use as a trademark', the European Court of Justice argues that the exercise of trademark claims must be limited to cases in which third parties use the sign in a way that interferes with the main function of a trademark (indicating the source of goods).[31] As a result, it is irrelevant whether consumers consider the sign to constitute a trademark; instead, it is decisive whether consumers regard the sign as an indication of the source of the contested goods or services. By focusing merely on the function of the trademark, the European Court of Justice has significantly curtailed the exclusive right of a trademark owner – a curtailment that relevant literature has increasingly criticized.[32]

2.4 European Court of Justice

The European Court of Justice does not adopt a clear position on the *singularia* postulate. In a decision from 1974, it merely mentions that provisions of exceptional character have to be strictly interpreted.[33] In 2001, however, Advocate General Jacobs argued extensively that in general a legislative exception, like any other legislative provision, should be given its proper meaning, determined in the light of its purpose and wording and the scheme and object of the instrument of which it forms part.[34]

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[28] ECJ, May 6, 2003, Case C-104/01– *Libertel*, 36 IIC, 56, 61, note 51 (2005).

[29] *See*, for instance, KELLERHALS, Der Benutzungszwang im Gemeinschaftsmarkenrecht, 1999 GRUR Int. 14, 24: narrow interpretation of Art. 15(1) CTMR, but no narrow interpretation of Art. 15(3) CTMR.

[30] KUNZ-HALLSTEIN, Zur 'Benutzungslast' im Markenrecht, 2001 GRUR 643, 644; LEWALTER/SCHRADER, Die Fühlmarke, 2005 GRUR 476, 477 (on Sec. 3(2) Trademark Act); INGERL/ROHNKE, Markengesetz, Sec. 3 margin no. 46 and Sec. 24 margin no. 58 (2nd ed. 2003); FEZER, Markenrecht, Sec. 3 margin no. 230a (3rd ed. 2001); KELLERHALS, *supra* note 29, 22; however KUR, Confusion Over Use? – Die Benutzung 'als Marke' im Lichte der EuGH-Rechtsprechung, 2008 GRUR Int. 1, 12 critical with regard to 'literal' interpretation of exemptions.

[31] Most recently ECJ, January 25, 2007, Case C-48/05 – *Opel/Autec*, 2007 GRUR Int. 404, 406, note 21.

[32] Most recently KNAAK, Markenmäßiger Gebrauch als Grenzlinie des harmonisierten Markenschutzes, 2008 GRUR Int. 91, 95 see also KUR, *supra* note 30, 11-12.

[33] ECJ, December 5, 1974, Case 176/73 – *Claudette van Belle v. Council of the European Communities*, note 24.

[34] Advocate General JACOBS, Opinion of December 13, 2001, note 46, to decision of the ECJ, Case C-96/00 – *Rudolf Gabriel*.

2.5 World Trade Organization

The Appellate Body of the World Trade Organization's dispute settlement institution has argued against the *singularia* postulate. According to that Body, merely characterizing a treaty provision as an exception did not by itself justify a stricter or narrower interpretation of that provision than would be warranted by examination of the ordinary meaning of the actual treaty words, viewed in context and in the light of the treaty's object and purpose, or, in other words, by applying the normal rules of treaty interpretation.[35]

3. Methodological Objections to *Singularia* Postulate

The *singularia* postulate claims to make a contribution to legal methodology. However, from a methodological point of view, it is rightly pointed out that the *singularia* postulate is questionable since it is not clearly defined.[36] To which features of a provision should it be linked? That is to say, what is an 'exception'?[37] In any case, one cannot pursue a purely literal approach and assume that exceptions are always indicated by certain words such as 'only', 'unless otherwise indicated …' or 'contrary to …'.[38] Moreover, such an application of the *singularia* postulate would be rooted in pure terminology and could therefore lead to an unjust decision.[39]

In fact the *singularia* postulate also seems to be based more on a systematic connection, that is, on whether the provision to be interpreted can be related to a more general rule with different content. Such a systematic link was at least made by the German Federal Supreme Court in those decisions in which it dealt with the interpretation of exemptions under copyright law. Specifically, the Court identified, as a general principle of copyright law, the notion that the author should receive the financial proceeds from the exploitation of his works. The exemptions or usage rights of third parties under copyright law are contrasted with this principle as exceptions.[40] However, such a link is not without its problems, since the 'generality' of a rule is relative. Nearly every rule of law can be interpreted as an exception to another more general rule and, conversely, practically every exception contains a more or less general principle which, for its part, may again be contradicted by

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[35] Appellate Body Report World Trade Organization, *EC – Measures Concerning Meat and Meat Products (Hormones)*, January 16, 1998, WT/DS26/AB/R, note IV.

[36] MUSCHELER, *supra* note 3, 147; LARENZ, *supra* note 9, 355.

[37] Ultimately, this does not even seem to be entirely clear to *singularia* postulate apologists, in that – without a conclusive definition or delineation – the exceptions are contrasted with 'restrictive elements of the link' (*einschränkende tatbestandliche Ergänzungen*), 'limitations of effect' (*Wirkungsbegrenzungen*) or 'waivers' (*negative Geltungsanordnungen*), to which the requirement of narrow interpretation should not apply, *cf.* CHROCZIEL, *supra* note 27, 205; HIEBER, *supra* note 27, 442.

[38] *Cf.* MUSCHELER, *supra* note 3, 155.

[39] Accordingly, conceptual jurisprudence was overridden by the jurisprudence of interests and values, *see* only BYDLINSKI, *supra* note 9, 109 *et seq.*; PAWLOWSKI, *supra* note 9, notes 3 *et seq.*

[40] *See* only German Federal Supreme Court (Bundesgerichtshof, BGH) – *Magnettonband*, *supra*, note 12; *Verhüllter Reichstag*, *supra* note 13; *Elektronischer Pressespiegel*, *supra* note 16.

counter-exceptions.[41] This relativity of the rule-exception relationship can be illustrated using intellectual property law as an example. The German Federal Supreme Court classifies the exclusive right of the author as a general rule and the usage right of a third party as an exception to this rule.[42] However, free movement of goods and the general freedom of competition could likewise be regarded as even more general rules, to which the author's exclusive right would represent an exception requiring justification.[43] This could then mean that the exemptions of copyright law would have to be broadly interpreted if the *singularia* postulate did in fact apply against the author's exclusive right.

Moreover, there would still be an additional methodological argument against the requirement of narrow interpretation of exceptions even if the specific features that make a rule an exception could be defined unequivocally. A provision would have to have already been interpreted, *i.e.* its normative content would have to have already been determined, before it could be subsumed under the definition of an exception. However, if the normative content of a provision to be interpreted must already be known in order to be able to apply a rule of interpretation – such as the *singularia* postulate in this case – this rule of interpretation has no heuristic value at all.[44]

The heuristic usefulness of the *singularia* postulate is also called into question by the fact that not only its trigger, *i.e.* the term 'exception', but also its legal consequence is not clearly defined. First, it is unclear whether the *singularia* postulate is intended to exclude only the analogous application of an exception or also the broader interpretation of such exception – whereas it must be taken into account that the boundaries between analogous application and broader interpretation are fluid.[45] It is also unclear when the *singularia* postulate is to decide the issue between several alternative interpretations. Should a rule only be interpreted narrowly 'in case of doubt', *i.e.* when the lawyer is undecided between several different interpretations?

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[41] MUSCHELER, *supra* note 3, 146. Sec. 10 (2) German Patent Act is referred to as an example for the relativity of rules and exceptions. Sec. 10 (2) half-sentence 1 German Patent Act excludes the existing possibility of a patent holder, pursuant to Sec. 10(1) German Patent Act, to prohibit contributory infringements, by way of exception, if the contributory infringement is committed by the delivery of staple goods. However, according to Sec. 10(2), 2nd half-sentence German Patent Act, the possibility for the patent holder, as a counter-exception to Sec. 10(2), 1st half-sentence German Patent Act, to prohibit a contributory infringement by means of the delivery of staple goods is revived if, by means of the delivery, a direct infringement by the recipient of the staple goods is deliberately caused. Such a gradation of exceptions and counter-exceptions can be continued *ad infinitum*, at least in theory.

[42] *See supra* 2.3.1.1.

[43] HOEREN, *supra* note 22, 870; *cf.* also regarding patent law *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972): a patent claim must be considered 'in light of this Nation's historical antipathy to monopoly … and of repeated congressional efforts to preserve and foster competition ... the prerequisites to obtaining a patent are strictly observed, and when the patent has issued the limitations on its exercise are equally strictly enforced.'

[44] German Federal Labor Court (Bundesarbeitsbericht, BAG), August 25, 1983, 6 ABR 52/08, 1984 Zeitschrift für Wirtschaftsrecht (ZIP) 84, 86; MUSCHELER, *supra* note 3, 147; LARENZ, *supra* note 9, 355, ENGISCH, *supra* note 9, 196; SCHNEIDER, *supra* note 9, 151; SCHOCKENHOFF, *supra* note 9, 426.

[45] MUSCHELER, *supra* note 3, 145.

Or must a rule be interpreted narrowly even if the lawyer is essentially convinced that a different interpretation is correct? This uncertainty shows that, in the end, the *singularia* postulate is of hardly any value for legal discourse. It is a specious argument that is intended to support an interpretation derived from other considerations.

Finally, one would still need to clarify the relationship between a requirement of narrow interpretation and the principle that a special provision overrides general provisions ('*lex specialis derogat legi generali*'). The *lex specialis* principle is indispensable for any differentiated legal system in that it acknowledges the capacity of a special provision to prevail over a more general provision. The latter applies at least insofar as the special provision is intended to achieve a definitive arrangement vis-à-vis the more general provision. The *lex specialis* principle is unsusceptible to an intertwining of general and special rules of law, or of exceptions and counter-exceptions. The *lex specialis* principle ultimately aims at the strengthening of a special provision vis-à-vis one (or several) general provisions. In contrast, the *singularia* postulate ultimately aims at the weakening of a special provision vis-à-vis a general principle and would thus become problematic if the allegedly general principle, for its part, were required to be weakened (as an exception to an even more general principle).

4. *Singularia* Postulate as an Argument under Intellectual Property Law

Although there are strong objections to the *singularia* postulate from a methodological perspective, one must still examine whether there are specific aspects in the area of intellectual property law that justify the alleged requirement of narrow interpretation of exceptions.

4.1 General Principle under Intellectual Property Law?

It should first be noted that the *singularia* postulate has no legal basis in the area of intellectual property law. The principle of narrow interpretation of exceptions is not anchored in the German Copyright Act, Trademark Act, or Patent Act, or in the European Patent Convention.

Nevertheless, the *singularia* postulate is frequently mentioned in copyright law. The question arises of whether the *singularia* postulate has special legitimacy in copyright law, and whether this legitimacy, if it exists, can be transferred to other fields of intellectual property law. However, there are doubts as to whether the *singularia* postulate is actually entirely justified in copyright law. The *singularia* postulate is advocated in copyright law in order to give the author a share in the financial proceeds that are generated with the commercial exploitation of his work.[46]

[46] In the *Elektronischer Pressespiegel* decision, the *singularia* postulate was in this respect only seemingly annulled. Although the German Federal Supreme Court interpreted the limitation of Sec. 49 (1) sentence 1 German Copyright Act more broadly, the Court has secured a double benefit for the author's commercial exploitation interests: Specifically, the author receives a claim for payment of equitable remuneration and in addition, this claim is directed against the copyright collecting society (VG Wort), so that he does not have to approach the user or users, Secs. 49 (1) sentences 2 and 3 German Copyright Act.

This is also openly expressed in case law, which derives the requirement of narrow interpretation of exemptions from a sense of fairness and a kind of fatherly concern for the author.[47] Yet, whether all the parties entitled to protection under copyright law are in need of such protection is debatable. If one pictures Carl Spitzweg's painting 'The Poor Poet', it seems obligatory to protect the author, whose income is not sufficient to afford even a warm and dry home. But this romantic image is antiquated: the German Copyright Act now protects not only the creator of works of literature, science and art, as specified in Section 1 German Copyright Act, but also copywriters,[48] authors of instruction manuals,[49] press photographers,[50] software programmers[51] and database architects.[52] Copyright law has expanded from 'soft' protection of underprivileged creative persons to 'hard' protection of technical contributions and investments. Of course, this development should not be objected to. However, if copyright law has developed into a veritable kind of commercial law, the question of the justification of the *singularia* postulate should not be answered differently for copyright law than for the other areas of intellectual property law.

In order to investigate whether a principle of narrow interpretation of exceptions under intellectual property law is to be acknowledged, it stands to reason that one would consult the general theories that were developed for the purpose of justifying exclusive rights under intellectual property law, *i.e.*, for example, natural law theory, reinforcement theory and incentive theory.[53] These theories could be cited as bases for promoting the interests of an author, inventor, *etc.* as extensively as possible. However, this objective would not necessarily be achieved by means of a narrow interpretation of exceptions. This is because exceptions do not always conflict with the interests of an author, inventor, *etc.* In patent law, for example, there are provisions that may be described as exceptions even though they promote the interests of an inventor or patent holder. Examples of this can be found in Sections 3(3), 10(3), 16a, 140b(3) German Patent Act or Article 54(4), (5) European Patent Convention. In spite of their possible exceptional nature, such provisions would have to be interpreted broadly if the interests of an author, inventor, *etc.* were required to be asserted as extensively as possible. But it is not only that general intellectual property theory does not demand a principle of narrow interpretation of exceptions. More importantly, the aim of asserting the interests of an intellectual property right holder as extensively as possible would, in reality, entail the pursuit of legal policy,

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[47] *Cf.* German Federal Supreme Court (Bundesgerichtshof, BGH), January 24, 2002, I ZR 102/99, 2002 GRUR 605, 605-606 – *Verhüllter Reichstag*.

[48] Longer advertising copy can potentially obtain copyright protection, Munich I District Court (Landgericht, LG), July 13, 1984, 21 S 20913/83, 1984 GRUR 737, 737 – *Bauherrenmodell-Prospekt*.

[49] German Federal Supreme Court (Bundesgerichtshof, BGH), April 11, 2002 I ZR 231/99, 2002 GRUR, 958, 959 – *Technische Lieferbedingungen*; Nuremberg Court of Appeals (Oberlandesgericht, OLG), March 27, 2001, 3 U 3760/00, 2001 Gewerblicher Rechtsschutz und Urheberrecht, Rechtssprechungsreport (GRUR-RR) 225, 226 *et seq.* – *Dienstanweisung*.

[50] Section 72 German Copyright Act.

[51] Sections 69a *et seq.* German Copyright Act.

[52] Sections 87a *et seq.* German Copyright Act.

[53] *See* only KRASSER, Patentrecht 34-35 (5th ed. 2004).

not jurisprudence. Instead of an interpretation of a law in the sense of an understanding and concretization of a legislative weighing of interests, one would be shifting the assessment of the law unilaterally and as broadly as possible for the benefit of the intellectual property right holder or, as the case may be, to the detriment of the general public. The guiding principle would no longer be the legislative weighing of interests, as expressed in the rule to be interpreted, but instead a special protection requirement of the social group of the authors, inventors, *etc.* sensed – rightly or wrongly – by the lawyer himself.

The legislator now assumes that authors, inventors, *etc.* are generally in need of and worthy of protection. This is why exclusive rights to intellectual property were created. However, when interpreting exemptions under intellectual property law, this cannot lead to a hasty conclusion for the benefit of the intellectual property right holder. What is decisive is that the legislator does not regard the interests of the intellectual property right holder as inviolable, but instead seeks to reconcile them, by means of exemptions, with certain usage requirements of the general public. The lawyer's task is to understand and concretize the reconciliation of interests.[54]

Thus, when interpreting exemptions under intellectual property law, the lawyer cannot rely on the abstract principle that the interests of authors, inventors, *etc.* have priority. The intention of the legislator or the telos of an exemption under intellectual property law is not for the exemption to be interpreted as narrowly as possible, but instead for it to be interpreted in a manner consistent with the purpose of the provision. Therefore, within the limits of the purpose of the law, a broader interpretation or analogous application is also permissible in the case of exemptions under intellectual property law. Even analogies are merely intended as a means for implementing the intent of the legislator, insofar as the law exhibits an unintended gap and the interests are comparable to a case that has been regulated by law.[55]

However, a cutoff point for the broader interpretation or analogous application of exemptions under intellectual property law could be reached if the exception to the rule were turned around,[56] *i.e.* if usage rights of third parties, and not the exclusive right of an intellectual property right holder, represented the norm. In this case, the exclusive right of a property right holder could degenerate into an empty shell

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[54] Thus, the following argument is problematic: 'the author must receive a fair share in the proceeds generated with the commercial exploitation of his works, meaning that the sole and exclusive rights to which he is entitled with regard to the exploitation of his works may not be excessively curtailed' (According to the German Federal Supreme Court (Bundesgerichtshof, BGH) – *Verhüllter Reichstag*, *supra* note 13; similar to German Federal Supreme Court (Bundesgerichthof, BGH), May 4, 2000, I ZR 256/97, 2001 GRUR 51, 52 – *Parfumflakon.*) The extent to which an intellectual property right holder must receive a share in the proceeds generated with the commercial exploitation of his intellectual property or, as the case may be, the extent to which the exclusive rights to which he is entitled are to be curtailed, is not certain *a priori* but instead needs to be clarified by means of the interpretation of provisions under intellectual property law.

[55] *Cf.* generally regarding exceptions BYDLINSKI, *supra* note 9, 81; LARENZ, *supra* note 9, 355-356; CANARIS, *supra* note 10, 181; HEINRICHS, *supra* note 9, note 53; ENGISCH, *supra* note 9, 196; PAWLOWSKI, *supra* note 9, note 489a; PIETZCKER, *supra* note 25, 319-320.

[56] *Cf.* MUSCHELER, *supra* note 3, 151; LARENZ, *supra* note 9, 356; CANARIS, *supra* note 10, 181.

(*nudum ius*). This conflicts with the protection of property required by Article 14 of the German Constitution and the prohibition of extraordinary sacrifice (*Sonderopfer*) pursuant to Article 3 of the German Constitution. The requirement not to allow the exclusive right of an intellectual property right holder to degenerate into a *nudum ius* may be the grain of truth that can be found in a *singularia* postulate under intellectual property law. However, this grain does not come close to legitimizing a *singularia* postulate. The scope of the *singularia* postulate entails much more than protecting an exclusive right from complete invalidation. In any case, a *singularia* postulate of such tenor would also be dispensable in view of the accepted requirement of interpretation in conformity with the Constitution, according to which Articles 14 and 3 of the German Constitution must be taken into account when interpreting exemptions under intellectual property law for the benefit of the intellectual property right holder.

4.2 Principle under Intellectual Property Law when Interpreting Exceptions to Protectability?

The question arises whether special characteristics apply in connection with the interpretation of exceptions to protectability under intellectual property law. Unlike the term 'exception', the concept of an 'exception to protectability' can be easily defined. Exceptions to protectability are provisions that, in certain cases, entirely or partly deny the claim of a party applying for an intellectual property right, or that entirely or partly deny copyright protection.

To the extent that intellectual property rights are granted by administrative agencies performing registrations (in trademark or patent registers), the grant procedure is subject to the principles of public law.[57] These include, in particular, the principle of lawfulness of the administration. The administration is strictly bound by the law. On the one hand, this is reflected in the principle that the administration may only act subject to a statutory provision and, in so doing, is bound by the limits that determine the overriding law.[58] On the other hand, the jurisprudence of the German Federal Constitutional Court must be complied with.[59] Where constitutional rights are affected, the legislator must make all essential regulations itself and may not leave

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[57] The grant of the patent represents an administrative act with a dual nature. It benefits the patent applicant and hinders all third parties. On the whole, however, one generally speaks of an administrative act that provides a benefit, German Federal Supreme Court (Bundesgerichtshof, BGH), July 19, 1967, Ia ZB 22/66, 1968 GRUR 447, 449 – *Flaschenkasten*; June 26, 1973, X ZR 23/71, 1974 GRUR 146, 147 – *Schraubennahtrohr*; SCHULTE, Patentgesetz, Sec. 49 margin no. 31 (7th ed. 2005); SCHÄFERS, in: BENKARD, Patentgesetz, Sec. 49 margin no. 3 (10th ed. 2006); SCHWENDY, in: BUSSE, Patentgesetz, Sec. 49 margin no. 13 (6th ed. 2003); MELULLIS, *supra* note 26, Art. 52 margin no. 23; KRASSER, *supra* note 53, 446; KÖNIG, Die Rechtsnatur der Patenterteilung und ihre Bedeutung für die Auslegung von Patentansprüchen, 1999 GRUR 809, 810; *cf.* also German Federal Patent Court (Bundespatentgericht, BPatG), March 28, 1962, 4 W 29/62, 1 Entscheidungen des Bundespatentgerichts (BPatGE) 15, 17.

[58] JARASS, in: JARASS/PIEROTH, Art. 20 margin no. 39 (9th ed. 2007).

[59] SCHULZE-FIELITZ, in: DREIER (ed.), Grundgesetz: Kommentar, Art. 20 *Rechtsstaat* (constitutional state) margin no. 113 (2nd ed. 2006).

this to the administration.[60] The administration thus lacks the legal basis for regulations that concern this area.[61]

Upon application for registration of the intellectual property right, a claim to the grant of such right arises. This is expressly stipulated in Section 33(2), 1st sentence of the German Trademark Act. In patent law, a similar claim to a grant is derived from the law regarding inventions which, in turn, is derived from either the general right of personality or from natural law.[62] This claim to a grant constitutes a pecuniary right and is therefore protected by Article 14(1) of the German Constitution.[63] Thus, the grant (or refusal) of an intellectual property right takes place in a field where constitutional rights are affected. If one takes into account the above-mentioned principles of public law in connection with the interpretation by an administrative agency of exceptions to protectability, an analogous application of exceptions to protectability is not possible.[64] The administrative agency would have no legal basis for refusing to grant the intellectual property right. Moreover, it is incumbent on the Patent and Trademark Office to present and prove the facts that lead to the refusal of the intellectual property right. In particular, this concerns the grant of trademarks. When refusing to grant a trademark, the Trademark Office can-

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[60] Decisions of the German Federal Constitutional Court (Bundesverfassungsgericht, BVerfG), August 8, 1978, 2 BvL 8/77, 49 Entscheidungen des Bundesverfassungsgerichts (BVerfGE) 89, 126; October 20, 1982, 1 BvR 1470/80, 61 Entscheidungen des Bundesverfassungsgerichts (BVerfGE) 260, 275.

[61] Leading decision, Decisions of the German Federal Constitutional Court (Bundesverfassungsgericht, BVerfG), May 6, 1958, 2 BvL 37/56, 11/57, 8 Entscheidungen des Bundesverfassungsgerichts (BVerfGE) 155, 166 *et seq.*; SCHULZE-FIELITZ, *supra* note 59, Art. 20 *Rechtsstaat* (constitutional state) margin no. 107.

[62] HUBMANN/GÖTTING, Gewerblicher Rechtsschutz, Sec. 5 margin no. 5 (7th ed. 2002), which expressly argues for derivation from natural law.

[63] 36 Entscheidungen des Bundesverfassungsgerichts (BVerfGE) 281, 290 (patent law); 31 Entscheidungen des Bundesverfassungsgerichts (BVerfGE) 229, 238 *et seq.*; 77, 263, 270; 79, 1, 25 (pecuniary part of copyright law); 51 Entscheidungen des Bundesverfassungsgerichts (BVerfGE) 193, 217 (trademark law); GRZESZICK, Geistiges Eigentum und Art. 14 GG, 2007 Zeitschrift für Urheber- und Medienrecht (ZUM) 344, 351.

[64] The application of exceptions to protectability is a controversial issue in some cases, for example in Sec. 2(1), 1st half-sentence German Patent Act, Art. 53 a) EPC (according to which patents shall not be granted in respect of inventions the commercial exploitation of which would be contrary to '*ordre public*' or morality) in the area of patenting biotechnological inventions, *cf.* for example STRAUS, Ethische, rechtliche und wirtschaftliche Probleme des Patent- und Sortenschutzes für die biotechnologische Tierzüchtung und Tierproduktion, 1990 GRUR Int. 913-929; STRAUS, Biotechnologische Erfindungen – ihr Schutz und seine Grenzen, 1992 GRUR 257-265. The applicability of the exceptions to protectability of Sec. 2(1), 1st half-sentence German Patent Act, Art. 53 a) EPC is under dispute when an invention, for which a patent has been applied, was made possible by the removal of human bodily matter, whereby the donor did not consent – or did not properly consent – to the removal of his bodily material. The application of Sec. 2(1), 1st half-sentence German Patent Act, Art. 53 a) EPC to such cases is rejected by the prevailing opinion: According to it, Sec. 2(1), 1st half-sentence German Patent Act, Art. 53 a) EPC is directed at the later exploitation of the invention, and, to that effect, past circumstances on which the invention is based may not be taken into consideration. In order to be able to reject the patent, the 'exploitation of the invention' must be contrary to the legal system or moral code. However, the rights of the donor were infringed at a time at which the

not base its decision solely on the apodictic assertion that the term is descriptive or lacks distinctiveness – which sometimes occurs in practice; instead it must actually demonstrate this in a plausible manner.[65]

Under German trademark law – unlike German patent law – the validity of an intellectual property right can be adjudicated in infringement proceedings.[66] Therefore the question arises of whether an infringement court may analogously apply an exception to protectability when deciding on the validity of a trademark in suit. In the end, one will have to assume that the civil court is prohibited from applying the exceptions to protectability analogously just as the granting authority is. Contradictory decisions on the protectability of a trademark in the granting procedure and the infringement proceedings must be avoided. The granting of a trademark would become a farce if this trademark could not be enforced in infringement proceedings before a civil court because the civil court objected to the trademark due to additional (analogously applied) exceptions to protectability. In any case, the other resolution of this problem – that is, loosening the obligation of the granting authority to abide by the law only because the validity of a trademark could be relevant for the decision in subsequent civil proceedings – is not practicable for constitutional reasons.

5. Conclusion

In legal arguments, use of the postulate that exceptions are to be interpreted narrowly (*singularia* postulate) is not uncommon. This postulate is mentioned in legal discourse on German copyright law, in particular. However, it has been shown that the *singularia* postulate is questionable from a methodological standpoint. Nor are there any special characteristics of copyright law and the other areas of intellectual property law which, in connection with the interpretation of exceptions to infringement, would allow application of the *singularia* postulate. Exceptions to infringement are to be interpreted, like other provisions, in accordance with customary hermeneutics. On the other hand, exceptions to protectability may not be applied analogously. However, this does not follow from the validity of the *singularia* postulate, but instead from the fact that the Patent and Trademark Office must adhere to special principles of public law.

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invention did not yet exist. Yet, this understanding of Sec. 2(1), 1st half-sentence German Patent Act, Art. 53 a) EPC has been criticized: This mainly stems from the fact that the grant of a patent that is based on the infringement of strictly personal rights of the donor would create the wrong impression that the state approves of such methods. For this reason, it is proposed that Sec. 2(1), 1st half-sentence German Patent Act, Art. 53 a) EPC be applied beyond their wording, so that the granting of patents can be rejected in this way. However, this proposal gives rise to significant concerns, among other things, due to the administration's obligation to abide by the law.

[65] To this end, also ECJ, April 19, 2007, C-273/05 P– *Celltech*, 2007 IIC 994, 994.

[66] Certain provisions of the German Trademark Act entitle the defendant to raise objections against the validity of a trademark on which the right to sue is based.

A Study on Patent Compulsory License System in China – With Particular Reference to the Drafted 3rd Amendment to the Patent Law of the P.R. of China

Xiaohai Liu

1. Introduction

The patent compulsory licensing system has always been a very controversial topic in intellectual property law, in particular for developing countries around the world.[1] The *TRIPS Agreement* signed in 1994 did not stop these disputes; instead, due to the complication of the relationship between the *TRIPS Agreement* and the *Paris Convention*, patent compulsory licensing has become even more complicated.[2] Although China has not issued any compulsory licenses, as this system involved numerous interests in the ongoing 3rd revision on the *Patent Law,* the patent compulsory licensing has become a focus to all.

Being involved in the legislative revision process of the *Patent Law of the P.R. of China*, I would like to explore the key issues on the patent compulsory licensing system from the perspective of China's law.

This paper will proceed as follows: firstly, it will discuss the meaning of 'Failure to Work or Insufficient Working' under the framework of TRIPS; secondly, it will explore whether the granting of a compulsory license is based on the refusal of the patent holder; thirdly, the paper will examine the relationship between compulsory license and anti-competition; and fourthly, it will cover the compulsory license for public health.

2. The Meaning of 'Failure to Work or Insufficient Working' Under the Framework of TRIPS

2.1 Recurrence of 'Failure to Work or Insufficient Working' of a Patent as a Ground for the Grant of a Compulsory License

Under the *Chinese Patent Law* of 1984, Article 51 and 52 provided the local working requirements for patents. Under Article 51, '[t]he patentee has the obligation by

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[1] PENROSE, The Economics of The International Patent System 137-161 (1951); Ladas, Patents, Trademarks, and Related Rights – National and International Protection, vol.1 (1975).

[2] LIN, Study on the Patent Compulsory License System under Trips System (2006). The book explained the discussion on compulsory license after signing the TRIPS Agreement.

himself to produce patented products, use his patented methods or allow others to produce his patented products or use his patented methods in China.' Article 52 provides:

> Where the patentee of an invention or utility model, after the expiration of three years from the grant of the patent right, has not fulfilled the obligation in Article 51 without any justified reason, the Patent Bureau may, upon the request of the entity which is qualified for exploitation, grant a compulsory license to exploit the patent for invention or utility model.

In the 1992 amendment to Patent Law, the drafted TRIPS Agreement was taken for guidance and then the above provisions were deleted from the Law. The current Patent Law amended in 2001 has no provisions such as 'failure to work or insufficient working'. Now a review on the drafted third amendment to the Patent Law is ongoing and many scholars propose to incorporate in China's Patent Law a clause to provide that: the patentee, failure to work the patent or insufficient work shall constitute the ground for granting compulsory license, in accordance with the Paris Convention.[3] In 2007, the Drafted Patent Law Amendment (for examination) (hereinafter referred to as the 'Draft') reiterates the provisions on 'fails to work or insufficient working' and takes them as the grounds for granting compulsory licenses. Article 48 of the Draft stipulates:

> Where the patentee of an invention or utility model, after the expiration of three years from the grant of the patent right, has not exploited the patent or has not sufficiently exploited the patent without any justified reason, the patent administration department under the State Council may, upon the request of the entity which is qualified for exploitation, grant a compulsory license to exploit the patent for invention or utility model.

Art. 5A(4) of the Paris Convention stipulates:

> A compulsory license may not be applied for on the ground of failure to work or insufficient working before the expiration of a period of four years from the date of filing of the patent application or three years from the date of the grant of the patent, whichever period expires last; it shall be refused if the patentee justifies his inaction by legitimate reasons. Such a compulsory license shall be non–exclusive and shall not be transferable, even in the form of the grant of a sub–license, except with that part of the enterprise or goodwill which exploits such license.

As a member country of the *Paris Convention*, China shall abide by the treaty. Indeed, there are no provisions in the *TRIPS Agreement* to state that the failure to work or insufficient working constitutes the grounds for applying for a compulsory license. But it does not mean that the *TRIPS Agreement* has canceled the relevant provisions of the 5(A) (4) of the *Paris Convention*. According to Article 2 of the

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[3] CAO/ZHANG, On the Perfection of Patent Compulsory License System – Analysis Based on the Patent Law of PRC Amendment Draft (for examination), published on Collection of Thesis on 2007 Annual Conference of Intellectual Property Institute of China Law Society and Issues on the Amendments of Patent Law and Trademark Law, 65 (Nov 2007).

TRIPS Agreement, Article 5 of the *Paris Convention* has already been a part of the *TRIPS Agreement*.

2.2 Defining the Meaning of 'work'

As 'failure to work or insufficient work' constitutes the ground for applying for a compulsory license, it is even more important to understand the meaning of the word 'work'. Since signing the *TRIPS Agreement*, it has caused some international disputes.[4] For instance, in the dispute between US and Brazil, the two countries had completely contrary interpretation of the word 'work'. Brazil argue that 'work' should be interpreted as 'to manufacture', to manufacture sufficiently patented products or to use the patented methods in Brazil,[5] based on which, to import, to sell and offer to sell are not considered as ' to work'. However, the US argued that as long as the patented products are 'imported' to any member of WTO, the patent has been 'worked' in that country. If the law were to be interpreted to require the patentee to 'produce or manufacture' the patented products in the country which grants the patent right, there would be discrimination against the imported patent products. Therefore, Article 68 of the *Brazilian Industrial Property Law* violated the Article 27(1) and 28(1)[6]of *TRIPS Agreement*. Article 68 of *Brazilian Industrial Property Law* indeed prohibited the patentees from meeting the local working requirements through importing patented products, and that in fact, constituted a discrimination against US patentees in Brazil.

2.2.1 The Meaning of 'work' Under the Paris Convention

There is no explanation about the word 'work' in the Paris Convention. However, from the development history of the Convention, the Convention gives its member countries the right to explain 'work' by themselves. Thus the word 'work' can be either interpreted to include the act of importing the patented products to the country, or it merely refers to manufacturing patented products and using the patented methods in the country. The so called 'local working'. Chinese scholar Professor Lin Xiuqin mentioned the following facts with regard to the above:[7] in the Roman Meeting which all Paris Convention member countries participated in 1896, as all countries had different interpretations on the word 'work', the meeting finally adopted the compromised opinion: the word 'work' has different meanings and

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4 WTO, *Brazil-Measures Affecting Patents Protection*, (registered on Jun 8, 2000), WTO Docs WT/DS 199/1, WT/DS/199/3, WT/DS199/4G/L/454, IP/D/23/Add.1.

5 WTO, *Brazil-Measures Affecting Patents Protection*, *supra* note 4.

6 It is provided in Art. 28 of the TRIPS Agreement: '1. A patent shall endow the following patent rights to the patent holder: (a) in the case of product patent, any of the following by the third party without consent of the patent holder shall be excluded: to manufacture, use, offer to sell, sell the patent products or import patent products; (b) in the case of method patent, any of the following by the third party without consent of the patent holder shall be excluded: manufacture, use, commit to sell, sell the products or import products for such purposes that directly obtained through the patent method.

7 LIN, Legal Thoughts for Local Implementation of Patent, Legal Studies, Issue 5 (2003).

every member country has the right to interpret 'work' themselves.[8] All following conventions made no changes to this position. In addition, the famous international intellectual property law scholar Ladas also mentioned that the meaning of 'work' under Article 5 of the Paris Convention had not been clearly described in the convention and could be interpreted by member countries.[9]

2.2.2 Whether the TRIPS Agreement Limits the Meaning of 'work'

Internationally, many scholars think that based on Article 31 of *TRIPS Agreement*, it does not prohibit its members from stipulating the 'local working' requirement[10] Chinese scholar Professor Xiuqin LIN also endorsed this opinion.[11] The answer to these questions shall be found in the *TRIPS Agreement* and *Paris Convention*. From the texts and relations of the two conventions,[12] there are no prohibitions on members from stipulating local working requirements in their legislation. According to these scholars, when explaining the articles of the *TRIPS Agreement*, Article 31 shall be combined with Articles 7, 8, 27 and 28 in order to find out the purpose of the Agreement, and shall apply the principle that special law shall prevail over general law. On the relationship between Article 31 and Articles 27 and 28, Articles 27 and 28 are general provisions on protecting patent rights, while Article 31 creates some exceptions to article 27 and 28, which fall within the concept of special law. When special law is in conflict with general law, special law prevails.

The aforesaid scholars did not precisely explain the limitations on the Article 27(1) of the *TRIPS Agreement*. Article 27: 'Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.' It can be concluded that the granting of the patent right and the owner of the patent cannot be discriminated by the origin of the products, *i.e.* whether the products are imported or locally manufactured. At the same time, discrimination is a very broad concept, which includes both factual and legal discrimination. It can be regarded as discrimination if the law regards the mere importation of patented products without producing locally as 'failure to work' and allows issuing compulsory licenses based on the sole ground of failing to work. In addition, no matter how many different opinions about 'work' were expressed by the members during the negotiating process of the *TRIPS Agreement*, there was no final stipulation on it in the Agreement. On the contrary, Article 27 stipulates that there shall be no discrimination against

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[8] *See* PENROSE, *supra* note 1, at 81.

[9] *See* LADAS, *supra* note 1, at 525.

[10] *See* CHAMP/ATTARAN, 'Patent Rights and Local Working under the WTO TRIPS Agreement: An Analysis of the US-Brazil Patent Dispute' 2002 Yale J. of Int'l L. 365; HALEWOOD, 'Regulating Work Requirements and Compulsory Licences at International Law' 35 Osgoode Hall L.J., 245 (1997).

[11] LIN, *supra* note 7, at 124,138.

[12] Based on Art. 2 of TRIPS Agreement, Arts. 1-12 and 19 of Paris Convention are part of TRIPS Agreement.

imported patent products. Therefore, importing shall be considered as one method of 'working' the patent.

Besides, it is necessary to mention that in the Article 2(2) of the *TRIPS Agreement*, it provides: nothing in Parts I to IV of this Agreement shall derogate from existing obligations that Members may have to each other under the *Paris Convention*, the *Berne Convention*, the *Rome Convention* and the *Treaty on Intellectual Property in Respect of Integrated Circuits*. It can be concluded that the *TRIPS Agreement* has no intention to detract the obligations for the *Paris Convention* member countries. 'A compulsory license may not be applied for on the ground of failure to work or insufficient working before the expiration of a period of four years from the date of filing of the patent application or three years from the date of the grant the patent, whichever period expires last' is the obligation among all members provided in 5(A)(4) under the *Paris Convention*.

Therefore, the WTO members shall not interpret 'work' as merely producing patent products locally, but to exclude 'to import, to offer to sell etc.' out of the scope of 'work'. It is inappropriate to regard Article 31 prevails over Article 27 as the aforesaid scholars argued. Of course, it shall also be mentioned that the 'time' requirements under the *Paris Convention* only applies to situations under which a compulsory license is issued for the reason of failing to work the patent or insufficient working. And this time condition does not apply to compulsory licenses granted for some other reasons (such as anti-competition or public interest).

2.2.3 Assessment of 'Failure to Work or Insufficient Working'

Some Chinese scholars are concerned that if patentees are allowed to import patent products to meet the working requirements of the patent, some patent holders might import a small quantity of patent products to evade the requirements.[13] Such concerns are not necessary. If a patentee works his patent by importing patent products and the reasonable demand for the patent products in China are not satisfied, such cases will be regarded as insufficient working. For such purpose, the *Chinese Patent Law* shall stipulate the standard and basis for judging assess insufficient working.[14] From this point of view, it is better to stipulate from the negative perspective, which shall be described as: if the patentee works his patent right merely through importing relevant patent products, but the quantity of such products is not sufficient, or the price is too high, or when the reasonable demand of the Chinese consumers for the relevant patent products is not satisfied, the patentee will be regarded as failing to work his patent sufficiently. The government departments can therefore issue compulsory licenses based on the above reasons. Such practice is in line with the *TRIPS Agreement*.

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[13] CAO/ZHANG, *supra* note 3, at 73.

[14] As to 'no implementation', it means the patent holder has never conducted any actions to implement patent rights. The contrary side of 'implementation' is 'no implementation'.

2.2.4 Whether a Mere 'Offer to Sell' Can Constitute 'Failure to Work or Insufficient Working' of a Patent

Some Chinese scholars contend that although the Article 11 of the *Patent Law* stipulates the patent implementation includes 'offering to sell' patent products or offering to sell products obtained directly through patent methods, if the patentee merely offers to sell patent products, it shall not be considered as 'working his patent' which would allow him to avoid compulsory license. Instead, the mere offering to sell shall be regarded as insufficient working.[15] I think this point of view is not correct. As to whether mere offering to sell constitutes insufficient working, it shall be decided on a case-by-case basis. Some instances might arise when foreign patent holders make an offer to sell their patent products under reasonable commercial terms but no one in China is willing to sell for various reasons. In particular, considering the fact that the Article 11 of the *Patent Law* stipulates that the mere offering to sell is a way of working the patent, there is no need to stipulate that mere offering to sell constitute failure to work or insufficient working in order to prevent unnecessary disputes.

3. Refusal to License and Compulsory License

3.1 Is the Refusal to License an Independent Ground or a Condition for Granting Compulsory Licenses?

Article 31(b) of the *TRIPS Agreement* stipulates:

> [S]uch use may only be permitted if, prior to such use, the proposed user has made efforts to obtain authorization from the right holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time. This requirement may be waived by a Member in the case of national emergency or other circumstances of extreme urgency or in cases of public non-commercial use. In situations of national emergency or other circumstances of extreme urgency, the right holder shall, nevertheless, be notified as soon as reasonably practicable. In the case of public non-commercial use, where the government or contractor, without making a patent search, knows or has demonstrable grounds to know that a valid patent is or will be used by or for the government, the right holder shall be informed promptly.

Based on such stipulation, is the refusal to license an independent ground or a condition to grant compulsory licenses? There are three different opinions in China:

The first is the Independent Reason Theory. It is regarded that the refusal to license is an abusive use of patent rights and therefore constitutes an independent ground to trigger the compulsory license procedure. That is, as long as the qualified person applies to the patentee with reasonable commercial terms for a license, but the patentee does not grant his consent within reasonable period, it constitutes the grounds for a compulsory license. Article 48 of the current *Patent Law of the P.R. of China* is a reflection of such opinion.

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[15] CAO/ZHANG, *supra* note 3, at 73.

The second is the Pre-condition Theory. It means that the refusal to deal is not an independent ground for issuing a compulsory license, but a pre-condition for applying for it, with the following three exceptions: (1) national emergency; (2) other extreme urgencies; (3) non-commercial public use. In other words, except the above-mentioned three situations, no compulsory licenses shall be granted without the prior efforts to obtain the consent of patentees.

The third one is the either-or Approach. This view holds that the refusal to grant a license can either be a pre-condition or an independent ground to grant a license.[16]

I agree with the second opinion which is in line with the *TRIPS Agreement*. If the refusal to license is regarded as an independent ground for issuing compulsory license, then as long as there are people who apply for a license with reasonable commercial terms, the patentee will have no room to refuse, or his patent will be subject to a compulsory license. This line of thinking would cause the patent right lose its original meaning. Therefore, the drafted Amendment to the *Patent Law* (for examination) adopts the second opinion. As the State Intellectual Property Office explains: It is a common pre-condition (with exceptions of national emergency, extreme urgencies and non-commercial public use) for issuing all types of patent compulsory license to require the person who wishes to apply for a compulsory license to make an effort to obtain the authorization from the patent holder with reasonable commercial terms. Only when such effort has not been successful, *i.e.*, the patentee refuses to grant a license within a reasonable period of time, may the person apply for a compulsory license.

3.2 Is a Refusal to License a Precondition for the Grant of a Compulsory License for Public Interest?

According to Article 53 of the drafted Amendment to the *Patent Law* (for examination), the entities or persons who apply for a compulsory license based on Article 48[17] and Article 51,[18] shall provide a copy of the proposed contract to show that they had made efforts to negotiate with the patentee with reasonable commercial terms and conditions and the license has not been granted within a certain period of time. According to such a stipulation, if a person applies for a compulsory license

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[16] CAO/ZHANG, *supra* note 3, at 70.

[17] Art. 48: The State Council patent administration department may issue compulsory license for invention or utility model patents to organizations which meet the requirements for implementation which caters into either of the following: (1). Within three years after issuance of patent, the patent holder has not sufficiently or has not completely implemented his patent rights without justified reasons; (2). The implementation by the patent holder has been regarded as anti-competition by the legislation.

[18] Art. 51: For a patented invention or utility model that constitutes major economic or technical advancement, and such implementation shall be based on the previous invention or utility model patents, the State Council patent administration department shall issue compulsory license to the previous invention or innovation based on application from the latter patent holder. When implementing compulsory license as per the previous article, the State Council patent administration may also issue compulsory license to use the latter invention or utility model based on the application from the previous patent holder.

for public interest and for exporting pharmaceutical medicines to resolve public health problems, he does not need to make prior efforts to obtain the consent of the patentee. It means that he can directly apply for a compulsory license. I don't think this is in line with the Article 31(b) of the *TRIPS Agreement*, which stipulates that only under national emergency, other extreme urgencies, and non-commercial public use, it is not necessary to negotiate with the patentee before applying for a compulsory license. However, 'public interest' is of very broad meaning and obviously it does not only refer to public non-commercial use. Meanwhile, granting the patent compulsory license for exporting pharmaceuticals to resolve public health problems does not always fall with the above three exceptional situations, and the requirement to negotiate with the patentee prior to applying for a compulsory license is not always exempted. Therefore, the provisions of Article 31(b) of the *TRIPS Agreement* are the criteria to determine whether the issuance of compulsory license needs to be conducted under the condition that the patentee had refused to grant a license.

4. Compulsory Licenses and Competition law

It is prescribed in Article 31(k) of the *TRIPS Agreement* that 'Members are not obliged to apply the conditions set forth in sub-paragraphs (b) and (f) above where such use is permitted to remedy a practice determined after judicial or administrative process to be anti-competitive. The need to correct anti-competitive practices may be taken into account in determining the amount of remuneration in such cases. Competent authorities shall have the authority to refuse termination of authorization if and when the conditions which led to such authorization are likely to recur'. It can be concluded that when the patentee has anti-competitive behaviors which constitutes the ground to issue compulsory license, the WTO members are not obliged to meet the conditions set forth under the above (b) and (f) sub-clause of Article 31. It is not necessary to negotiate with the patentee (Article b) prior to applying for compulsory license, and the compulsory license is not necessarily granted to meet the domestic market demand (sub-clause f). However, there are several issues to be clarified when granting compulsory license based on anti-competition ground.

4.1 Defining Anti-Competitive Behaviour

According to Article 31(k) of the *TRIPS Agreement*, anti-competitive behavior as a ground for granting compulsory license has to be determined through judicial or administrative procedures, and no person can start the compulsory license procedure just because he accused the patentee of committing anti-competitive conducts. As the meaning of anti-competition, the *Patent Law* shall not stipulate it directly and it should be determined in accordance with the recently enacted Chinese *Anti-monopoly Law* in which Article 17 provides that, the potential anti-competitive conducts of the patentee may include: (1) predatory pricing, *i.e.* sell products with unfair high prices or purchase products with unfair low prices without appropriate reasons; (2) refuse to deal; (3) force to deal, *i.e.* without appropriate reasons, to limit

the other party to deal with them only or the dealer they designated; (4) tied-in selling; (5) discriminating price, *i.e.* with no appropriate reasons, setting different dealing prices and conditions with dealers of the same qualifications.

4.2 Remuneration

Based on Article 31(k) of the *TRIPS Agreement*, is it compulsory to pay remuneration to the patentee when granting compulsory license for anti-competition. With regard to it, the drafted *TRIPS Agreement* once provided the 'appropriate remuneration' in the Brussels Draft; however, the final text of the *TRIPS Agreement* provides that 'the need of anti-competition may be taken into consideration when deciding the amount of remuneration'. It is not clear how to explain the above provision? From the context of Article 31 of the *TRIPS Agreement* and its negotiating history, it seems to mean that when granting a compulsory license for the purpose of curbing anti-competition, the remuneration paid to the patentee can not only be lower than that under other situations but also be zero. Mr. Daniel Gervais who participated in the *TRIPS Agreement* negotiation endorsed this point of view.[19]

5. Compulsory Licenses and Public Health

To cope with the growing public health problems in developing countries and the least developed countries, the *Declaration on the TRIPS Agreement and Public Health* (hereinafter referred as Doha Declarations) was approved in the Fourth Meeting of Ministers of WTO Members on Nov 14, 2001.[20] The *Declaration* states: WTO members shall be allow to use the flexibility when implementing the *TRIPS Agreement*, and 'Each Member has the right to determine what constitutes a national emergency or other circumstances of extreme urgency, it being understood that public health crises, including those relating to HIV/AIDS, tuberculosis, malaria and other epidemics, can represent a national emergency or other circumstances of extreme urgency.'

The WTO General Council approved the *Decision on the Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health* (hereinafter referred to as Decision of the General Council) on August 30, 2003.[21] The decision conditionally waives the obligations under Article 31(f) and 31(h) of the *TRIPS Agreement,*[22] and allows the WTO members to export the patented pharmaceuticals with a compulsory license.

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[19] GERVAIS, The TRIPS Agreement: Drafting History and Analysis, 253 (2nd ed. 2003); LIN, supra note 2, at 193.

[20] WTO, 'Declaration on the TRIPS Agreement and public health', WT/MIN(01)/DEC/2., Paras 17-19 of the Doha Declaration are related to TRIPS Agreement, 'Declaration on the TRIPS Agreement and public health', WT/MIN(01)/DEC/2.

[21] Decision of the General Council of 30 August 2003, 'Implementation of paragraph 6 of the Doha Declaration on the TRIPS Agreement and public health', WT/L/540, available at <http://www.wto.org/english/tratop_e/trips_e/implem_para6_e.htm> (as of March 2008).

[22] Decision of the General Council of 30 August 2003, *supra* note 21, at para. 2 is the waive of obligation under Art. 31.f of TRIPS, and para. 3 is the waive of obligation under Art. 31.h.

In order to implement the *Doha Declaration* and the *Decision of the General Council*, China's State Intellectual Property Office issued Order No. 37 on November 29, 2005 on the *Implementing Measures for Patent Compulsory Licensing concerning Public Health Problems* (hereinafter referred to as 'the Health Measures'). The *Measures* came into force on Jan 1, 2006. The 'Health Measures' stipulates that it is permissible to import relevant patented pharmaceuticals through compulsory license for the purpose of public health, and to export to countries that lack the capacity to produce the pharmaceuticals with compulsory license.[23]

As to the compulsory license system for public health, there are some deficiencies in the drafted Amendment to the *Patent Law of the P.R. of China* (for examination), which is necessary to amend and clarify.

5.1 The Concept of Public Health Problems, Public Health Crisis, and Epidemics

For public health, *Doha Declaration* and *Decision of the General Council* adopted the concepts like 'Public Health Problems'[24], 'Public Health Crisis'[25] and 'Public Health'[26] etc., while *China's Health Measures* for compulsory license used the word 'contagious diseases',[27] which was corrected to 'Epidemic'[28] in the drafted amendment to the *Patent Law of the P.R. of China (for examination)*. Obviously, either 'contagious diseases' or 'epidemic', its extension meaning is much narrower than 'public health' or 'public health problems'. To this, many countries (such as Germany and Switzerland etc.) follow the concept 'public health' as stated in *Doha Declaration* and *Decision of the General Council*. In my opinion, it is not advisable for China to make such strict restrictions on the above concepts and China shall follow the international conventions and other countries' practice to use the concept 'public health'.

5.2 Whether Qualified Entities can Apply for a Compulsory License

Based on Article 49 of the drafted amendment to the *Patent Law of the P.R. of China (for examination)*, when the public health problem appears to be an epidemic, the State may grant the compulsory license where a national emergency occurs or the public interest so requires. However, the following procedure should be followed: the patent administration department under the State Council may, as suggested by a competent department under the State Council, grant the entity designated by the department a compulsory license to exploit the patent for invention or utility model. There are problems in this stipulation. Firstly, it mixed the rights to deal with public health problems in China and the rights to apply for a compulsory license. Secondly,

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[23] Arts 6, 9 of 'Measures on Compulsory License'.
[24] *Id.*
[25] Art. 5(c) of Doha Declaration.
[26] Art. 1(a) of the Decision of the General Council.
[27] Arts 2, 3 of the 'Measures on Compulsory License'.
[28] Art. 50(2) and 50(3) of the 'Draft'.

when the public health problem arises, it shall be determined by the competent department under the State Council. However, it is inappropriate to grant a compulsory license only to the entity designated; instead, any qualified entity may apply for a compulsory license under the above situation. Hence, I contend that the amended *Patent Law of the P.R. of China* shall permit the qualified entities to apply for a compulsory license directly.

5.3 Are Requests for a Contractual Licence Required Before the Grant of a Compulsory License for Public Health Reasons?

It is clearly stipulated in Article 31(b) of *the TRIPS Agreement* that only in the case of a national emergency, or other circumstances of extreme urgency or in cases of public non-commercial use, the compulsory license can be issued without making prior efforts to obtain a contractual license from the patentee. However, not all compulsory licenses issued for resolving public health problems fall within the above three situations. For instance, compulsory license issued to prevent public health problems does not necessarily belong to the above three situations.

5.4 The special rules on determining the Remuneration

It is provided in Article 3 of the *Decision of the General Council* of August 30, 2003, where a compulsory license is granted by an exporting Member under the system set out in this Decision, adequate remuneration pursuant to Article 31(h) of the TRIPS Agreement shall be paid to that Member by taking into account the economic value to the importing Member of the use that has been authorized in the exporting Member. Where a compulsory license is granted for the same products in the eligible importing Member, the obligation of that Member under Article 31(h) shall be waived in respect of those products for which remuneration in accordance with the first sentence of this paragraph is paid to the exporting Member.

This Article is mainly designed to prevent double compulsory license remuneration to both exporter and importer. In addition, *Doha Declaration* and *the Decision of the General Council* had no special provisions on the compulsory license remuneration. However, when it is necessary to issue the compulsory license for the sake of public health, remuneration shall be relatively low. For instance, the EU provided that the reasonable remuneration shall not exceed 4% of the total price[29] when there is a national emergency or other circumstances of extreme urgency or in cases of public non-commercial use under the Article 31(b) of the *TRIPS Agreement*, China shall have similar provisions on the *Implementing Regulations of Patent Law.*

[29] Art. 10(9) of Council Regulation (EC) No 816/2006 of 17 May 2006 on compulsory licensing of patents relating to the manufacture of pharmaceutical products for export to countries with public health problems.

6. Conclusions

In conclusion, as to the patent compulsory licensing system, China shall abide by the requirements of the *TRIPS Agreement* when amending the *Patent Law*, and also needs to consider the real situation of China. Therefore, when amending the compulsory license system, we need to overcome many theoretical and systematic barriers. This article put forward to some suggestions to deal with the legal difficulties revealed during the legislation process, including the appropriate definition of 'failure to work or insufficient working', the definition of 'anti-competitive behaviour' in the context of issuing patent compulsory license and treating 'refusal to license' as an independent ground. I hope that this article would provide some help to the amendment of *the Patent Law.*

Compulsory Licensing in Chinese Patent Law

Xiaoguang Shan

1. Introduction

Although not one compulsory license has been requested and granted since the entry into force of the first Patent Law of the P.R. of China in 1985, it has been a hot topic in the patent field of China especially since China suffered SARS in 2003. The Patent Law of the P. R. of China is now undergoing revision for the third time. In the Draft of Amendments to the Patent Law (Draft) as promulgated by the State Intellectual Property Office (SIPO) on July 31, 2006[1] there are some significant changes about the compulsory licensing system to the current patent law. The following article will first briefly review the historic and current development of the compulsory licensing system in the patent law of the P.R. of China and then provide insight into the important proposed amendments of the compulsory licensing system in the Draft.

2. History of the Compulsory Licensing System

2.1 The Patent Law of 1984

The Patent Law of 1984 (The Patent Law of 1984)[2] was the first Patent Law of the P. R. of China since it was establishment in 1949. In the draft of the Patent Law of 1984 there were two kinds of regulations about the government limitation of a patent right. One was the compulsory licensing, the other one was the expropriation of a patent right. In order to avoid the misunderstanding from a foreigner, the regulation about the expropriation of patent right was later cancelled and only the one of compulsory licensing still remains.[3]

The compulsory licensing in the Patent Law of 1984 was regulated as follows:

The patentee has the obligation to manufacture the patented product or to use the patented process in China or to authorize others to do so (Article 51). If, three years after the date of the grant of a patent right, the patentee of an invention or utility model has failed to fulfill the obligation to manufacture the patented product or use the patented process or to authorize others to do so in China without any justified

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1 Available at <http://www.sipo.gov.cn/sipo/tz/gz/200608/P020060808327106040484.pdf> (as of March 2008).

2 It was adopted at the Fourth Meeting of the Standing Committee of the Sixth National People's Congress and promulgated by order No. 11 of the President of the People's Republic of China on March 12, 1984, and effective as of April 1, 1985, *see* 1984 Zhonghua Renmin Gongheguo Guowuyuan Gongbao (The State Council Bulletin of P.R. China) 6, 164 -173.

3 TANG ZONGSHUN, Memory about the draft of the Patent Law, in: LIU CHUNTIAN (ed), Twenty Years of the Intellectual Property Rights in P.R. China, 100 (1998).

reason, the Patent Office may grant a compulsory license (Article 52). If a patented invention or utility model is technically more advanced than another earlier patented invention or utility model and the exploitation of the later invention or utility model is dependent on the exploitation of the earlier invention or utility model, a compulsory license may be granted. On the other hand, if a compulsory license has been granted in accordance with the preceding ground, a compulsory license to exploit the later invention or utility model can also be granted to the earlier patentee (Article 53).

From what is mentioned above, we can see that in the Patent Law of 1984 the patentee had the obligation to use the patent or to authorize others to do so in China (Article 51) and there were altogether two circumstances for the Patent Office to grant a compulsory license (Articles 52 and 53). According to Article 54 of the Patent Law of 1984, anyone requesting a compulsory license based on these two circumstances had to furnish proof that he had not been able to conclude a licensing contract on reasonable terms with the patentee.

The Patent Law of 1984 had also regulated the procedure about the requesting and granting of a compulsory license. Any decision of granting a compulsory license should be registered and publicly announced (Article 55). Any compulsory license could not be an exclusive license and the licensee had no right to authorize the exploitation of the patent by others (Article 56). A compulsory licensee should pay a reasonable license fee, and if the parties could not reach an agreement about the license fee, the Patent Office should make a ruling (Article 57). If a patentee disagreed with the decision of granting a compulsory license or disagreed with the ruling regarding the license fee, he could file a suit in a court within three months of receiving notification of the decision (Article 58).

2.2 The Patent Law of 1992

In order to follow the drafting of TRIPS[4] in good time some changes about the compulsory licensing were made in the revision of the Patent Law for the first time in 1992 (The Patent Law of 1992).[5] The regulation of the obligation to exploit a patent in China was cancelled. Two other circumstances for granting a compulsory license were added:

Where any entity qualified to exploit the invention or utility model had requested the patentee to grant a license on reasonable terms and such efforts had not been successful within a reasonable period of time, the Patent Office could grant a compulsory license (Article 51 of the Patent Law of 1992). But this kind of compulsory license could be requested only after the expiration of three years from the

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[4] WEN XIKAI, Consideration and Retrospect of the Patent Law Legislation, in: LIU CHUNTIAN (ed), *id.*, at 115.

[5] It was amended by the Decision Regarding the Revision of the Patent Law of the People's Republic of China, adopted at the 27th Session of the Standing Committee of the Seventh National People's Congress on September 4, 1992. *See* 1992 Zhonghua Renmin Gongheguo Guowuyuan Gongbao 24, 938-947.

date of the grant of the patent right (Article 68 of the Implementing Regulations of the Patent Law of 1992).

In addition, a compulsory license could also be granted by the Patent Office in case of a national emergency or any extraordinary state of affairs (Article 52 of the Patent Law of 1992).

The other regulations about compulsory licensing in the Patent Law of 1984 remained unchanged and were accepted by the Patent Law of 1992.

3. The Current System of the Compulsory Licensing

3.1 The Patent Law of 2000

In accordance with TRIPS, the Patent Law of the P.R. of China was revised for the second time in 2000 (The Patent Law of 2000)[6] and is effective up till now. There are also some changes in the compulsory licensing in this revision. As in the Patent Law of 1992 there are altogether three circumstances for granting a compulsory license in the Patent Law of 2000, the only change as to the regulations about these circumstances is a strict limitation of the circumstance for granting a compulsory license concerning a dependant patent.

The current rules of the compulsory licensing in the Patent Law of 2000 are:

A compulsory license may be granted if any qualified entity has requested the patentee to grant a license on reasonable terms and such efforts have not been successful within a reasonable period of time (Article 48 of the Patent Law of 2000 equals to Article 51 of the Patent Law of 1992 which is unchanged).

A compulsory license may also be granted for a national emergency or any extraordinary state of affairs or the public interest (Article 49 of the Patent Law of 2000 equals to Article 52 of the Patent Law of 1992 which is unchanged).

If a patented invention or utility model involves *important* technical advance of *considerable economic significance* to another earlier patented invention or utility model and the exploitation of the later invention or utility model is dependent on the exploitation of the earlier invention or utility model, a compulsory license may be granted. In addition, if a compulsory license has been granted in accordance with the preceding ground, a compulsory license to exploit the later invention or utility model can also be granted to the earlier patentee (Article 50 of the Patent Law of 2000 equals to Article 53 of the Patent Law of 1992 some of which are changed).

Just as in Article 54 of Patent Law of 1992, the Patent Law of 2000 regulates in Article 51 that anyone requesting a compulsory license based on these three circumstances has to furnished proof that he had not been able to conclude a licensing contract on reasonable terms with the patentee.

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[6] It was amended in accordance with the Decision of the Standing Committee of the 9th National People's Congress on Amending the Patent Law of the People's Republic of China and adopted at its 27th Meeting on August 25, 2000, and came into force on July 1, 2001. *See* 2000 Zhonghua Renmin Gongheguo Guowuyuan Gongbao 30, 9.

The main changes of the compulsory licensing in the Patent Law of 2000 are those regulations regarding the procedure granting a compulsory license:

The decision of granting a compulsory license made by the Patent Office shall be notified promptly to the patentee concerned and shall be registered and announced. In the decision of granting the compulsory license, the scope and duration of the license shall be specified on the basis of the reasons justifying the grant. If and when the circumstances which led to such compulsory license cease to exist and are unlikely to recur, the Patent Office may terminate the compulsory license upon the request of the patentee (Article 52).

Anyone granted a compulsory license has no exclusive right to exploit the patent and has no right to authorize exploitation of the patent by others (Article 53 of the Patent Law of 2000 equals to Article 56 of the Patent Law of 1992 which is unchanged).

Anyone granted a compulsory license shall pay a reasonable license fee and by failing to reach an agreement about the fee the Patent Office shall make a ruling (Article 54 of the Patent Law of 2000 equals to Article 57 of the Patent Law of 1992 which is unchanged)

If the patentee is not satisfied with the decision of granting a compulsory license, or the patentee or the compulsory licensee is not satisfied with the ruling regarding the license fee, he may, within three months from the receipt of the date of notification, institute legal proceedings in the court (Article 55).

3.2 Measures for Compulsory Licensing of Patent Implementation of 2003

In order to standardize the granting, the ruling of license fee, termination procedures for the compulsory licensing, etc., SIPO formulated on June 13, 2003 the Measures for Compulsory Licensing of Patent Implementation (Measures)[7]. According to Para. 3 of Article 4 of the Measures in emergency or irregular event of the state or for the purposes of public interest, it is SIPO that is entitled to grant a compulsory license as per the petitions by the competent authorities under the State Council.

3.3 Measures for Compulsory License on Patent Implementation Concerning Public Health Problems of 2005

In accordance with the Declaration on the TRIPS Agreement and Public Health (WT/MIN(01)/DEC/2) (Doha Declaration) and the Decision of August 30, 2003 (WT/L/540), Implementation of paragraph 6 of the Doha Declaration on the TRIPS agreement and public health (Decision of the General Council), SIPO promulgated on November 29, 2005 the Measures for Compulsory Licensing on Patent Imple-

[7] *See* the Order of the Director of the SIPO (No.31, 2003), available at <http://www.sipo.gov.cn/sipo/flfg/zl/bmgz/200703/t20070329_148176.htm> (as of March 2008).

mentation concerning Public Health Problems of 2005 (Measures concerning Public Heath).[8] The main contents are as follows:

Acts of preventing or controlling the appearance and spread of epidemic diseases and treatment thereof fall within the acts for public interests as mentioned in Article 49 of the Patent Law of 2000, and public health crises caused by the appearance and spread of any epidemic disease represent the national emergency as mentioned in Article 49 of the Patent Law of 2000 (Article 3).

The epidemic diseases as mentioned in these Measures refer to HIV/AIDS, tuberculosis, malaria, which result in public health problems, and other epidemics as prescribed in the Law of the P.R. of China on the Prevention and Control of Epidemic Diseases. The pharmaceuticals as mentioned in these Measures refer to any patented product or product produced through patented process in the medical field for the treatment of the epidemic diseases including the effective components needed for the manufacture of these products and the diagnosis reagents needed when using these products (Article 2).

In case a patent right is granted to any pharmaceuticals for treating certain epidemic disease in China and China has the capacity for the production of the pharmaceuticals, according to Article 49 of the Patent Law of 2000, the relevant competent authorities under the State Council may request SIPO to grant a compulsory license for implementing such a patent (Article 4). But if China is not capable or has insufficient capacity in producing such pharmaceuticals, the relevant administrative authorities under the State Council may request SIPO to grant a compulsory license permitting the licensee to import such pharmaceuticals manufactured by a member of WTO under the system established by the Decision of the General Council of WTO in addressing the public health problems in China (Article5). In respect of this compulsory license granted by SIPO under this circumstance, the licensee and any others shall not export such imported pharmaceuticals to any other countries or regions (Article 6). It is worthy to be mentioned, that according to Article 8 a patented pharmaceutical for treating certain epidemic disease can be parallel imported into China.[9]

In accordance with Article 9, a compulsory license for the manufacturing of patented pharmaceuticals treating epidemic diseases can be granted for export to a WTO Member under the system set out in the Decision of the General Council or to any least-developed country of non-WTO Member.

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[8] It came into force as of January 1, 2006, *see* the Order of the Director of the SIPO (No.37, 2005) available at <http://www.sipo.gov.cn/sipo/flfg/zl/bmgz/200703/t20070329_148195.htm> (as of March 2008).

[9] Interwiew with Mr. Yin Xintian, Director of the Legal Affairs Department of SIPO, available at <http://www.sipo.gov.cn/sipo/xwdt/mtjj/2005/200512/t20051208_72775.htm> (as of March 2008).

4. The Proposed Amendments of the Compulsory Licensing in the Draft of Amendments to the Patent Law

The main purposes of the revision of the Patent Law for the third time concerning the compulsory licensing are to realize the Doha Declaration and the Decision of the General Council, and to coordinate the relationship among the Patent Law, the Measures and the Measures concerning Public Heath.

The main proposed regulations about the compulsory licensing in the Draft of Amendments to the Patent Law are:

The first circumstance for granting a compulsory license mentioned in Article 48 of the Patent Law of 2000 would be cancelled. This provision is similar to the first sentence of Article 31 lit.b of TRIPS, but this first sentence in Article 31 lit. b is not a circumstance, only a requirement for granting a compulsory license except in case of national emergency or public interest.

Two new circumstances for granting a compulsory license are added to the Draft. One of them is that a compulsory license can be granted if the patentee fails to exploit or sufficiently exploit the invention within three years of receiving the patent and a normal license from the patentee has not been obtained within a reasonable period of time on reasonable terms. In fact, this provision is a reestablishment of Article 52 of the Patent Law of 1984. Because according to Article 11 of the Patent Law of 2000 exploitation of the patent in China means to make, use, offer to sell, sell or import the patented product, or to use the patented process, use, offer to sell, sell or import the product directly obtained by the patented process. This regulation about the obligation to exploit patents in China is therefore in line with Article 5 (A) of the Paris Convention and does not violate Article 27(1) of TRIPS.

The other new circumstance is that a compulsory license can been granted to remedy a practice determined after judicial or administrative process to be limited- or exclusive-competitive.[10] This regulation is newly established in order to adapt to the Anti-monopoly Law of the P. R. of China (Anti-monopoly Law).[11] In accordance with Article 55 of Anti-monopoly Law, Anti-monopoly Law is not applicable to undertakings who exercise their rights under the intellectual property law such as the Patent Law. However, abuse of intellectual property rights, practice of limited- or exclusive-competitive, etc. will be dealt with pursuant to Anti-monopoly Law.

The Draft also addresses a compulsory license granted by SIPO because of national emergency or public interest upon the request of relevant administrative authorities under the State Council. National emergency or public interest includes a public health crisis caused by the occurrence and/or spread of an epidemic disease. In such a case, a compulsory license would be granted to prevent and control occur-

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[10] This provision was not provided in the Draft promulgated by the SIPO on July 31, 2006 but is in the new Draft sent to the State Council for examination. *See* the online interview with Mr. Yin Xintian available at <http://www.sipo.gov.cn/sipo/tfs/dtxx/jndt/200701/t20070116_127249.htm> (as of March 2008).

[11] The Anti-monopoly Law of the People's Republic of China was adopted at the 29th meeting of the Standing Committee of the Tenth National People's Congress of the People's Republic of China on August 30, 2007, and shall be effective as of August 1, 2008.

rences of epidemic diseases and treat patients with epidemic diseases. The provision of the granting a compulsory license for a dependant patent remains unchanged.

The Draft adds to the justifications for a compulsory license of the manufacturing of patented pharmaceuticals treating epidemic diseases for export to developing or least undeveloped countries.

There are some new regulations about the procedure for granting a compulsory license. According to Article A 3(1) of the Draft, except the compulsory license for export to developing or least undeveloped countries, a compulsory license shall be predominately for the supply of the domestic market. Where the invention involved in the compulsory license relates to the semi-conductor technology, the compulsory license shall be limited only for public non-commercial use or to remedy a practice determined after judicial or administrative process to be limited- or exclusive-competitive (Article A 3(2) of the Draft).

It is provided in the Draft that anyone requesting a compulsory license except in case of national emergency or public interest has to furnish proof that he had not been able to conclude a licensing contract on reasonable terms with the patentee (Article 51 of the Draft).

The other regulations regarding the procedure granting a compulsory license remain almost unchanged like those in the Patent Law of 2000.

5. Conclusion

In the P.R. of China, compulsory licensing gets significant attention although no compulsory licenses haven been granted so far. The regulations in the Patent Law of China are regulated according to international conventions such as the Paris Conventions and TRIPS. The main changes in the compulsory licensing system by the revision of the Patent Law for the third time supply two new circumstances for granting a compulsory license and clarify that national emergency or public interest includes a public health crisis. It is a new important regulation that a compulsory license of patented pharmaceuticals can be granted for export to developing or least-developed countries.

Deceptive Conduct in the Patent World – A Case for US Antitrust and EU Competition Law?

Josef Drexl

1. Introduction

Refusal to license is not the only IP-related scenario in which Section 2 Sherman Act on monopolization and Article 82 EC on abuse of market dominance may come into play. Both the US Federal Trade Commission (FTC) and the European Commission recently applied these rules in situations concerning the acquisition of patents by deception. Cases of deception may arise in particular when business operators hold back information about their patent policies as members of a standard-setting organization (SSO) or when they provide false information or conceal information as applicants before patent offices.

In the United States, the FTC applied Section 2 Sherman Act in *Rambus*, a patent ambush case.[1] Rambus, a developer and licensor of computer memory technologies, had participated in JEDEC,[2] the business-wide standard-setting organization (SSO) for computer memory (DRAM[3]) technology. By concealing its own research activities and patent policies, Rambus distorted the standard-setting process and obtained patents for the technology which was ubiquitously incorporated in the business-wide memory standard. This enabled Rambus to impose monopolistic royalty rates on the manufacturers of DRAMs, including JEDEC members, who were locked in by the standard. The FTC argued that Rambus had violated Section 5 FTC Act and Section 2 Sherman Act by engaging in exclusionary conduct and thereby acquiring monopoly power in the relevant markets.[4] Under Section 5(a)(2) of the FTC Act, the FTC ordered Rambus to 'cease and desist' from such conduct and in particular to grant any interested party a worldwide, nonexclusive license for its patents controlling the standard.[5] On petition by Rambus, the Court of Appeals for the

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1 *In the Matter of Rambus Inc.*, Docket No. 9302, http://www.ftc.gov/os/adjpro/d9302/index.shtm (as of January 31, 2008); *see* also MINTZER/BREED, How to Keep the Fox Out of the Henhouse: Monopolization in the Context of Standard-Setting Organizations, 19(5) IP & Tech. L.J. 5 (2007).

2 Joint Electron Device Engineering Council.

3 Dynamic random access memory.

4 Opinon of the FTC of 2 August 2006, available at <http://www.ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf> (as of January 31, 2008).

5 Final Order of the FTC of 2 February, 2007, available at <http://www.ftc.gov/os/adjpro/d9302/070205finalorder.pdf> (as of January 31, 2008). For a more detailed discussion of the *Rambus* remedies, *see* MINTZER/BREED, supra note 1, at 7-9; TREACY/KOSTENKO, Setting maximum royalty rates, 2007 (June) Comp. L. Insight 8. The probably most intriguing question was the one relating to the royalties to be paid under the license. For constraints of space, this article will not discuss the issue of remedies.

D.C. Circuit, in a decision of April 22, 2008, set aside the FTC orders and remanded to the FTC.[6] The Court of Appeals was not satisfied with the FTC's holding that Rambus had monopolized the market. Yet the Court leaves the FTC the chance to provide additional evidence in this regard. Of course, Rambus's conduct affects a worldwide market. This is why the European Commission also started to investigate the *Rambus* case in 2007 alleging a violation of Article 82 EC.[7]

In Europe, the Commission applied Article 82 EC to allegedly deceptive conduct on the part of AstraZeneca concerning the acquisition of a supplementary protection certicifate (SPC) for a its omeprazole-based ulcer medicine known under the trademark Losec.[8] This drug enjoyed protection under a European patent which was about to expire on April 3, 1999. In the 1990s AstraZeneca gave misleading information to several national patent offices about the date when the first EU Member State had granted marketing allowance for the drug. Under Article 19 of the SPC Regulation,[9] this date was crucial for qualifying for the newly introduced SPC, which may extend patent exclusivity by up to five years. Regarding AstraZeneca's behavior, Competition Commissioner Neelie Kroes forcefully declared:

> I fully support the need for innovative products to enjoy strong intellectual property protection so that companies can recoup their R & D expenditure and be rewarded for their innovative efforts. However, it is not for a dominant company but for the legislator to decide which period of protection is adequate.[10]

Based on Article 82 EC, AstraZeneca was charged €60 million.[11] The Commission decision against this kind of 'evergreening' of the patent is currently on appeal before the European Court of First Instance (CFI).[12]

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[6] *See Rambus Inc. v. FTC* (D.C. Cir. 2008), available at <http://pacer.cadc.uscourts.gov/common/opinions/200804/07-1086-1112217.pdf> (as of April 27, 2008).

[7] A Statement of Objections was sent to Rambus on July 30, 2007; *see* Press Release of August 23, 2007, MEMO/07/330, available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330&format=HTML&aged=1&language=EN&guiLanguage=en> (as of January 31, 2008). *See* also THOMAS, Patent ambush and the Rambus case, 2007 (January) Comp. L. Insight 14; more generally on the law in the EU, *see* PETRISI, The Case of Unilateral Patent Ambush Under EC Competition Rules, 28 World Competition 24 (2005).

[8] Commission Decision of June 15, 2005, Case COMP/A.37.507/F3 – *Generics/AstraZeneca*, available at <http://ec.europa.eu/comm/competition/antitrust/cases/decisions/37507/en.pdf> (as of January 31, 2007). *See* also FAGERLUND/RASMUSSEN, AstraZeneca: the first abuse case in the pharmaceutical sector, 2005(3) Comp. Pol'y Newsletter 54. On the Commission's general competition policy concerning the pharmaceutical industry, *see* DE SOUZA, Competition in Pharmaceuticals: the challenges ahead post AstraZeneca, 2007(1) Comp. Pol'y Newsletter 39.

[9] Council Regulation (EEC) No. 1768/92 of June 18, 1992 concerning the creation of a supplementary protection certificate for medicinal products, [1992] OJ L 182, p. 1.

[10] *See* Press Release of June 15, 2005, IP/05/737, available at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/737> (as of January 31, 2008).

[11] This fine was imposed for two distinct abuses. In addition to having conceiled the true date of the first marketing allowance to patent offices, AstraZeneca was charged to have delayed market entry of generic drugs by selectively diregistering the market authorization for Losec capsules. This second abuse will not be discussed in this article.

[12] Pending Case T-321/05.

The statement of Commissioner Kroes will intuitively meet approval by competition and IP experts alike, probably also including *Josef Straus* to whom this contribution is dedicated. Yet the decisions by the FTC and the European Commission may well be more problematic than it seems at first glance. The law should of course ban deceptive conduct. Whether, however, deception leading to the acquisition of IPRs is a matter for antitrust and competition law is a different issue.[13] This article will compare the situation in the US and the EU and explain the role antitrust and competition laws should adequately play in such situations. We will first look at the application of the antitrust and competition law rules in *Rambus* and *AstraZeneca* (*infra* 2 and 3). Then we will address the main policy issue at the interface of IP and competition law, namely whether antitrust and competition law intervention can actually be justified in the two cases in the light of the overall goal of maintaining a dynamically pro-competitive, innovation enhancing system (*infra* 4).

2. Application of Section 2 Sherman Act in Rambus

2.1 The Monopolization Claim Supported by the US FTC

In its opinion of August 2, 2006, the FTC held that Rambus had violated Section 5 FTC Act by referring to the concept of deception used in Section 5(a)(1), but basically discussed that case as one of monopolization in the sense of Section 2 of the Sherman Act.[14]

Based on the general requirements identified by the US Supreme Court for monopolization[15] the FTC identified three issues, namely '(1) whether Rambus engaged in exclusionary conduct; (2) whether Rambus acquired monopoly power; and (3) whether there was a causal link between Rambus's conduct and its monopoly power.'[16]

2.1.1 Exclusionary Conduct

In its opinion, the FTC follows the well-established concept of exclusionary conduct under US law which draws a line between lawful competition on the merits and

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[13] This concern also seems to have motivated the D.C. Circuit to set aside the FTC decision in the *Rambus* case, *see supra* note 6.

[14] The initial complaint was threefold, namely that Rambus had '(1) monopolized certain memory technology markets through a pattern of anticompetitive and exclusionary conduct; (2) attempted to monopolize these markets; and (3) engaged in unfair methods of competition.' *See* Opinion of the FTC, *supra* note 4, at 12.

[15] *See U.S. v. Grinnell Corp*., 384 U.S. 536 (1966): 'The offense of monopoly under Section 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition [384 U.S. 563, 571] or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.' In *U.S. v. du Pont & Co*., 351 U.S. 377, 391 (1946), the Supreme Court defined monopoly power as 'the power to control prices or exclude competition.'

[16] Opinion of the FTC, *supra* note 4, at 27.

exclusionary conduct which does not simply harm competitors but reduces efficiency. The FTC states:[17]

> Exclusionary conduct is 'conduct other than competiton on the merits – or other than restraints reasonably 'necessary' to competiton on the merits – that reasonably appear[s] capable of making a significant contribution to creating or maintaining monopoly power.' Stated differently, if 'a firm has been attempting to exclude rivals on some basis other than efficiency,' it is engaging in exclusionary conduct. The focus, at all times, is on harm to competition, not merely harm to competitors.

Against the backdrop of this statement, it is clear that exclusionary conduct has to be considered the cornerstone of the monopolization claim and antitrust liability. Instead of evaluating the effects of the given conduct on the market in view of the general goal of promoting efficiency, the FTC quickly turns to the concept of deception, which could never be considered competition on the merits:

> The exclusionary element alleged here is that Rambus engaged in a course of deceptive conduct. (…) This sort of deceptive conduct is not competition on the merits. Just as 'false or misleading advertising has an anticompetitive effect,' distoring choices through deception obscures the relative merits of alternatives and prevents the efficient selection of preferred technologies.[18]

The FTC makes it clear that a monopolization claim under Section 2 Sherman Act differs from an unfair competition and deception claim under Section 5(a)(1) FTC Act in two regards. First, whereas under Section 5(a)(1) the state of the mind of the defendant is irrelevant, Section 2 requires that the defendant act 'wilfully' in acquiring or maintaining monopoly power. Second, whereas Section 5(a)(1), declaring as unlawful all 'unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce,' does not require any competitive harm, Section 2 requires that Rambus's conduct harms the competitive process and that the anticompetitive effects outweigh the procompetitive benefits.[19]

The latter requirement defines the legal test. Instead of applying a *per se* rule, according to which acquisition of an IPR by deceptive conduct would always be held to be in violation of the antitrust laws, the FTC favors a rule-of-reason approach as known from the analysis of Section 1 Sherman Act. The rule of reason requires a full assessment of the pro and anticompetitive effects of the allegedly unlawful conduct on the relevant market. Application of a rule of reason even in a case of deceptive conduct is explained by the FTC by reference to the *Microsoft* decision of the D.C. Circuit[20] where the Court had to deal with allegedly deceptive conduct on the part of Microsoft vis-à-vis manufacturers of application software.[21] According to the D.C. Circuit, the burden to proof of the plaintiff – here the FTC –

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[17] *Id.*, at 28 (citations omitted).
[18] *Id.*, at 28 *et seq.* (citations omitted).
[19] Opinion of the FTC, *supra* note 4, at 30.
[20] *United States v. Microsoft Corp.*, 253 F.3d 34, 58-59 (D.C. Cir. 2001).
[21] The FTC specifically referred to that portion of the *Microsoft* decision, *see* Opinion of the FTC, *supra* note 4, at 32.

that the anticompetitive effects in fact outbalance the procompetitive benefits only comes into play at the third stage of a three-step test. First, the plaintiff has to show a *prima facie* case of monopolization by proving some anticompetitive effects. The defendant may secondly rebut that case by asserting a nonpretextual claim that its conduct actually constitutes competition on the merits by enhancing efficiency. Only then, the burden of proof falls back upon the plaintiff to show that the anticompetitive effects outweigh the procompetitive benefits.

In closely following this three-step approach, the FTC firstly analyzes the deceptive conduct of Rambus and the reactions of the other members of JEDEC in order to establish a *prima facie* case of exclusionary conduct. The FTC concludes that Rambus's 'deceptive conduct contributed significantly to Rambus's acquisition of monopoly power by distorting JEDEC's technology choices and undermining JEDEC members' ability to protect themselves against patent hold-up. This conduct caused harm to competition.'[22]

Secondly, the FTC states that Rambus was not successful in establishing a nonpretextual, procompetitive justification.[23] Here, Rambus's defense strategy rested upon the argument that keeping information on innovation secret is procompetitive. The FTC counters that Rambus thereby completely ignored its deceptive course of conduct and the context in which that conduct had occurred.[24] The FTC does not argue that, in a case of deception, a justification will never be possible. In order to justify deceptive conduct, Rambus would rather have to show that its deceptive conduct as such was efficient.[25]

2.1.2 Possession or Acquisition of Monopoly Power

In the US, practice has held that in order to be able to monopolize a market significant 'monopoly power' would be required.[26] The FTC is extremely brief on this second requirement.[27] It simply states that Rambus held 90 percent of the market share in the four undisputed technology markets.[28] The FTC adds that from 1998 the majority of DRAMs sold have complied with the JEDEC standards controlled by Rambus's patents.

From the facts, it is however clear that Rambus only acquired this kind of monopoly power *after* its deceptive conduct had occurred. Hence, Rambus was not

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[22] *Id.*, at 68.
[23] *Id.*, at 68-71.
[24] *Id.*, at 69.
[25] *See United Stated v. Microsoft Corp.*, 253 F.3d 34, 77 ('Microsoft offers no procompetitive explanation for its campaign to deceive developers'). In *Rambus*, the FTC refers to this citation in order to show that '[d]eceptive conduct is extraordinarily difficult to justify.' *See* Opinion of the FTC, *supra* note 4, at 69.
[26] *See supra* note 15.
[27] Opinion of the FTC, *supra* note 4, at 72 *et seq*.
[28] Namely (1) the latency technlogy market; (2) the burst length technology market; (3) the data acceleration technology market; and (4) the clock synchronization technology market.

accused of exclusionary conduct by using existing monopoly power but rather of exclusionary conduct *as a means of acquiring monopoly power.*[29]

In *Rambus*, the FTC is obviously of the opinion that even firms with small market shares may gain monopoly power and harm competition if deception is involved. Section 2 Sherman Act may capture such conduct under the general concept of monopolization, which does not require pre-existing monopoly power.

2.1.3 Causation

Section 2 Sherman Act finally requires that the deceptive conduct has in fact *caused* the acquisition of monopoly power. The FTC argues a causal link in two steps: First, there was a causal link between Rambus's deceptive conduct and the adoption of the standard.[30] It was but for this conduct, that JEDEC would either have excluded Rambus's technologies from the standards or would have asked for RAND (reasonable and non-discriminatory) terms in ex ante negotiations. According to the facts assessed by the FTC, alternative technologies were available and were considered viable and even preferable by some JEDEC members. Second, the FTC also found a causal link between the setting of the JEDEC standards and the acquisition of monopoly power by Rambus.[31] DRAMs are highly dependent on the interoperability with complementary components, which drives standardization in the DRAM industry.

Nevertheless, Rambus came forward with arguments against causation[32] some of which later convinced the D.C. Circuit. Rambus's best argument was that a distortion of the decision-making process would not amount to harming competition, but only the interests of JEDEC members.[33] In substance, Rambus thereby criticized that banning its deceptive conduct under Section 2 would only benefit DRAM manufacturers who would get the license for the standardized technology more cheaply without any benefits for the final consumer. The FTC also rejected this claim by stating that JEDEC did not only bring together DRAM manufacturers but also the principal purchasers of DRAMs and that 'a fair, honest, and consensus-based standard-setting process can be beneficial to consumers, while substantial competitive concerns may arise when the standard-setting choices of the SSO's participants are distorted.'[34] The FTC concluded that Rambus had not offered any explanation why the decision-making process of JEDEC and the interests of JEDEC members as such would not be consistent with a procompetitive result.[35]

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[29] *See* Opinion of the FTC, *supra* note 4, at 5 (‚The Commission finds that Rambus violated Section 5 of the FTC by engaging in exclusionary conduct that contributed significantly to the acquisition of monopoly power …').

[30] *Id.*, at 74-77.

[31] *Id.*, at 77-115.

[32] *Id.*, at 79-114.

[33] *Id.*, at 96.

[34] *Id.*

[35] *Id.*

2.2 The Decision of the D.C. Circuit Setting Aside the Orders of the FTC

Before the D.C. Circuit, Rambus continued to rely on basically two arguments. First, it was argued that the FTC erred in finding that Rambus had violated JEDEC patent disclosure rules. Second, Rambus claimed that FTC erroneously based its monopolization claim on the allegation that Rambus prevented JEDEC *either* from adopting a non-proprietary standard *or* from imposing a RAND commitment when standardizing the technology since, in the second hypothetical, Rambus would not have violated the antitrust law.[36]

The DC Circuit accepted the latter argument.[37] The Court made clear that exclusionary conduct 'must have "anticompetitive effect." That is, it must harm the competitive process and thereby harm consumers. In contrast, harm to one or more competitors will not suffice.'[38] Hence, deceptive conduct is not sufficient for a monopolization claim. The Court even goes so far to argue that even if deception results in higher prices, this cannot be considered a antitrust violation as long as such conduct does not harm competition.[39] In the FTC's second hypothetical, the Circuit did not find any harm to competition: Had JEDEC forced Rambus to license at RAND conditions, this would have most likely reduced competition whereas higher prices tend to attract competitors.[40] Therefore the D.C. Circuit concluded that the FTC had failed to show that Rambus's conduct was exclusionary and that its conduct unlawfully monopolized the relevant market.[41]

The D.C. Circuit set aside the FTC's orders and remanded for further proceedings consistent with the Court's opinion.[42] The FTC will now have to find out whether its first hypothetical according to which Rambus prevented JEDEC from choosing another standard by concealing its policies can actually be proven. In addition, the FTC will have to find stronger arguments in favor of its conclusion that Rambus acted against JEDEC's disclosure rules. In this regard, the D.C. Circuit criticized the FTC for taking 'an aggressive interpretation of rather weak evidence.'[43]

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[36] *See Rambus Inc. v. FTC* (D.C. Cir. 2008), *supra* note 6, at p. 10 *et seq*.

[37] *Id*, at 11. As to the FTC's reasoning *see* at 2.1.3 *supra*. The D.C. Circuit expressly left unanswered whether the first hypothetical, namely that Rambus prevented JEDEC to adopt a different standard, would qualify as an antitrust violation; *id*, at 13.

[38] *Id*, at 12 (citations omitted).

[39] *Id*, at 14.

[40] *Id*, at 18.

[41] *Id*, at 19.

[42] *Id*, at 24.

[43] *Id*, at 23. Hereby the D.C. Circuit, *id*, at 22, was able to refer to the decision by the Court of Appeals for the Federal Circuit in the patent infringement dispute of *Rambus, Inc. v. Infineon Technologies AG*, 318 F.3d 1081 (Fed.Cir. 2003), where the defendant Infineon relied on contract fraud as a defense. The Federal Circuit had in fact held that JEDEC disclosure rules were too amorphous and unbounded and that therefore Rambus did not violate any disclosure duty. This case was finally settled in 2005. See also ALBAN, Rambus v. Infineon: Patent Disclosures in Standard-Setting Organizations, 19 Berkeley Tech. L.J. 309 (2004) (criticizing the decision of the Federal Circuit).

The D.C. Circuit's judgment highlights a pecularity of US law. Section 2 Sherman Act on monopolization only bans exclusionary practices, whereas exploitative practices that simply impose excessive terms and prices on trading partners without excluding competitiors cannot be captured. In contrast, Article 82(a) EC explicitly bans 'imposing unfair purchasing or selling prices or other unfair trading conditions.' Yet clear-cut decisions on exploitation are rather rare.[44]

For the working of standard-setting organizations the decision of the D.C. Circuit may prove to be highly detrimental. The decision reads like an invitation to cheat in the process of standard-setting. Of course, the D.C. Circuit only decided on the antitrust claim. Other parts of the law may provide remedies against such deceptive conduct. However, the decision of the Federal Circuit in *Rambus v. Infineon*,[45] on which also the D.C. Circuit partially relies, demonstrates that also the threshold for contract fraud will be very high. Unfortunately, the D.C. Circuit did not consider the FTC's assumption that standard-setting in SSO's should generally be considered procompetitive. Reliance of the Circuit on the expectation that high royalties rates will attract competitiors will remain wishful thinking when customers only accept the standardized technology.

2.3 The European Perspective: Is there an Unfair Competition Claim?

In its decision, the FTC applied an integrative approach with regard to Section 5 FTC Act and Section 2 Sherman Act. The FTC refers to the unfair competition claim based on deception in the sense of Section 5(1)(a) FTC Act only briefly and then turns to Section 2 from which it takes the test applied to the case. In doing so, the FTC reacts to criticism concerning its earlier patent ambush case *Dell Computer Corporation*, where it justified a violation of Section 5 exclusively with the deception claim.[46]

2.3.1 Article 82 of the EC Treaty and National Laws on Unfair Competition

Yet, reference to the wording of Section 5(a)(1) seems interesting from a comparative perspective. In the EU, Article 82 requires market dominance at the time of the abusive conduct. Unlike Section 2 Sherman Act, EU competition law does not capture mere acquisition of market dominance through abuse.[47]

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[44] The ECJ, for instance, applied this rule in order to control royalty fees imposed by collecting societies holding monopoly positions in Member States; see Case 395/87, *Tournier*, [1989] ECR 2521; Case 110/88, *Lucazeau and others*, [1989] ECR 2811.

[45] *Rambus, Inc. v. Infineon Technologies AG*, 318 F.3d 1081 (Fed.Cir. 2003); *see* also *supra* note 47.

[46] *In the Matter of Dell Computer Corporation*, Docket No. C-3658, 121 F.T.C. 616 (1996). This case was settled by a consent order. In a dissent Commissioner *Azcuenaga* criticized the majority for ignoring the antitrust test. See also COWIE/LAVELLE, Patent Converting Industry Standards: The Risks to Enforceability Due to Conduct before Standard-Setting Organizations, 30 AIPLA Quart. J. 95, at 121-126 (2002).

[47] In the same sense GÉRARDIN/RATO, Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-Up, Royalty Sacking and the Meaning of FRAND, 3 Eur. Comp. J. 101, at 160 (2007); PETRISI, *supra* note 7, at 31; THOMAS, *supra* note 7, at 15.

In the EU, unilateral conduct by non-market dominant undertakings, like Rambus at the time of its deceptive conduct, is usually addressed under unfair competition laws. However, the EC Treaty itself contains no provisions on unfair competition. National laws are harmonized in particular by the Unfair Commercial Practices Directive,[48] which only applies to business-to-consumer commercial practices.[49] Neither does Rambus's conduct meet the definition for 'commercial practices,' which requires a communication 'connected with the promotion, sale or supply of a product to consumers,'[50] nor do JEDEC members qualify as consumers in the sense of the directive.[51] In Europe, it would therefore be for the domestic laws of the Member States to provide sufficient protection against patent hold-ups exercised by yet non-dominant undertakings.

2.3.2 Lessons to be learned in Europe from Section 5(a)(1) of the FTC Act

The question remains whether from a comparative perspective Section 5(a)(1) FTC Act may provide some guidance for the application of unfair competition laws in Europe.

Section 5(a)(1) of the FTC Act reads as follows: 'Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.'

With regard to deceptive conduct, this provision has its principal scope of application in the field of misleading advertising, which, in the EU, is part of the abovementioned Unfair Commercial Practices Directive.[52] In *Rambus*, the FTC seems to hide more than to explain by referring to Section 5 FTC Act. The FTC states:

> We stand on familiar grounds when we evaluate whether Rambus engaged in a deceptive course of conduct. Section 5 of the FTC Act proscribes, *inter alia*, deceptive acts and practices, and accordingly, the Commission has developed special expertise to determine whether conduct is deceptive. Lest here be any doubt as to the elements of deceptive conduct under Section 5, those elements were spelled out in the Commission's 1983 Policy Statement on Deception (Policy Statement), which the courts have treated as the definitive description of those elements under the FTC Act.[53]

Whereas there is no doubt that the FTC has acquired special expertise with regard to deceptive conduct, such expertise stems from application of Section 5(1)(a) to business-to-consumer advertising and not to deceptive conduct vis-à-vis businesses or even among members of an standard-setting organization in particular. The two cases cited by the FTC in this context belong to the area of deceptive advertising

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[48] Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market, 2005 OJ L 149, p. 22.

[49] Article 3(1) of the Directive.

[50] Article 2(d) of the Directive.

[51] Article 2(a) of the Directive.

[52] *See* Articles 6 and 7 of the Directive.

[53] Opinion of the FTC, *supra* note 4, at 29 (citations omitted).

vis-à-vis consumers.[54] Even more strangely, the FTC pretends that the 1983 Policy Statement on Deception[55] is meant to protect everybody, including businesses, against deception. The opinion reads:

> According to the Policy Statement, for conduct to be found deceptive, there must have been a 'misrepresentation, omission or practice' that was 'material' in that it was likely to mislead '*others* acting reasonably under the circumstances' and thereby likely to affect their 'conduct or decision[s].' (emphasis added)[56]

The citation uses the word 'others' whereas the Policy Statement in fact only mentions 'consumers.' The FTC thereby veils the fact that in *Rambus* it transfers a concept of deception developed for business-to-consumer advertising to a quite different set of cases.

Such extension would rightfully have to disturb us if the FTC had applied Section 5(a)(1) as the exclusive basis for illegality of the deceptive conduct in question.[57] If the FTC had decided that way, it would have protected only other JEDEC members. Such an application would collide with the principle that antitrust law should only protect competition and not competitors. The FTC tried to avoid such an unwanted application by reading the antitrust standard of Section 2 Sherman Act into Section 5 FTC Act.

In Europe, in the absence of an integrated system of laws on antitrust and unfair competition, there might be a much higher risk that national rules on deception – or other rules against unfair competition – are applied in an anticompetitive way, namely in the sense of intervention in favor of businesses without any harm to competition. The *Rambus* case may recommend Europeans two alternative precautionary measures: either to extend the scope of application of Article 82 EC to cases of acquisition of a market-dominant position or to make sure that domestic unfair competition laws are applied in a pro-competitve way. The latter has been in the focus of the most recent reform of the German Act against Unfair Competition. Revised Section 1 of the Act makes clear that the Act pursues the three ultimate goals of protecting (i) the interests of competitors, (ii) of consumers and other customers and (iii) of the general interest in maintaining undistorted competition.[58] Nowadays it is generally held in Germany that the third goal of maintaining undistorted competition does not only have the function of justifying intervention but, maybe more importantly, also of preventing the application of the Act for instance in situations in which an exclusive focus on the interests of competitors would lead to anticompetitive results.[59]

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[54] *FTC v. Colgate-Palmolive Co.*, 380 U.S. 374, 391 *et seq.* (1965); *Kraft, Inc. v. FTC*, 970 F.2d 311 (7th Cir. 1992).

[55] Federal Trade Commission, Policy Statement on Deception (1983), <http://www.ftc.gov/bcp/policystmt/ad-decept.htm> (as of January 31, 2008).

[56] Opinion of the FTC, *supra* note 4, at 29 *et seq*.

[57] In fact, this was the approach of the FTC in its earlier patent ambush case *In the Matter of Dell Computer Corporation*, Docket No. C-3658, 121 F.T.C. 616 (1996); *see* also *supra* note 50.

[58] *Gesetz gegen den unlauteren Wettbewerb*, Act of July 3, 2004, 2004 OJ (BGBl.) Part I, p. 1414.

[59] See KÖHLER, in: HEFERMEHL/KÖHLER/BORNKAMM, Wettbewerbsrecht § 1 UWG note 46 (25th ed. 2007).

3. The AstraZeneca Decision of the European Commission

According to Article 82 EC, unilateral conduct is only considered anticompetitive if two requirements are met, namely a showing of (1) a market-dominant position on the part of the defendant undertaking in the relevant market and (2) abusive conduct.

3.1 Market Dominance

The definition of the relevant market as a basis for assessing market dominance of the defendant undertaking forms a major part of the *AstraZeneca* decision.[60]

The Commission preferred a narrow definition of the relevant product market, limited to so-called proton pump inhibitors (PPIs), to which omeprazole belongs.[61] According to the European Court of Justice (ECJ), a dominant position is defined as 'a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers.'[62] In applying this definition, the Commission did not only rely on a market share analysis.[63] It also highlighted the importance of patent protection as a barrier to entry in the specific case.[64] AstraZeneca was clearly the 'pioneer inventor' for PPIs. Patent protection for omeprazole by itself did not exclude market entry of manufacturers of other PPIs. However, AstraZeneca exercised major competitive pressure on such other manufactures mostly by suing them for patent infringement and settling these cases at almost dictated terms.[65] The Commission concluded that AstraZeneca held a dominant position in the principle Member States as of 1993 until the end of the 1999s and in some states even until 2000.[66]

AstraZeneca had filed its first round of SPC applications in June 1993 (Netherlands, Luxembourg, United Kingdom, Ireland, Germany and Denmark) and its second round in December 1994 (Austria, Finland and Norway). Given these dates, one wonders whether market dominance already existed at the date of the first applications and with regard to the prior decisions of the undertaking on the information to be given to the patent offices. The Commission solves this problem by arguing that the abuse was of a 'single and continuous nature' based on the 'high degree of centralization and coordination' that characterized the AstraZeneca's policy on acquiring SPCs in different Member States.[67]

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[60] Comission Decision, *supra* note 8, at paras 329-504.
[61] *Id.*, at paras 373-379. The FTC thereby excluded so-called H2-blockers. H2-blockers were not held to be substitutes mostly because of the revolutionary nature of PPIs for the treatment of acid-related gastro-intestinal diseases.
[62] Case 27/76, *United Brands v. Commission*, [1978] ECR 207, para. 65.
[63] Commission Decision, *supra* note 8, at paras 567-600.
[64] *Id.*, at paras 517-540
[65] *Id.*, at para. 521; *see* also paras 87-96.
[66] *Id.*, at para. 601.
[67] *Id.*, at paras 774 *et seq.*

3.2 Abuse

The Commission held that AstraZeneca abused its market dominant position in the sense of Article 82 EC by making instructions to patent agents that led to misleading representations in the SPC applications to domestic patent offices.[68]

With regard to the abuse requirement, four issues will be discussed in the following: (i) exclusionaray intent on the part of AstraZeneca; (ii) the need to show actual exclusionary effects as harm to competition; (iii) the need to show harm to consumers; and (iv) the possibility of objective justification in the sense of an efficiency defense.

3.2.1 Exclusionary Intent

As to its exclusionary intent, AstraZeneca argued that it could reasonable interpret Article 19 of the SPC Regulation in a sense which justified the representations made to the patent offices.[69] According to Article 19, patent offices only grant an SPC for a product that is protected by a valid basic patent on the date of the entry into force of the Regulation and 'for which the first authorization to place it on the market as a medicinal product in the Community was obtained after 1 January 1988.' In fact, the first market authorizations for omeprazole were obtained in France in April 1987 and in Luxembourg in October 1987. According to the findings of the Commission, AstraZeneca was aware of those dates and that they would create a serious obstacle to the grant of SPCs. After finding out that it was only in March 1998 that it could effectively start to market omeprazole in Luxembourg – after official publication of the price – and that price negotiations in France were only concluded in 1989, AstraZeneca behaved according to an 'effective marketing theory.' It concealed full information on the dates of the marketing allowances before January 1, 1988 and instructed its patent agents to cite 'Luxembourg March 1988 as first in the EC.'[70] It was only in 2003, namely on referral by the *Bundesgerichtshof* concerning the lawfulness of the omeprazole SPC grant in Germany,[71] that the ECJ clarified that Article 19 refers to the technical marketing allowance[72] and not to later authorization based on domestic pricing and reimbursement rules. Although the question on the correct interpretation of Article 19 was only clarified a long time after AstraZeneca's SPC applications, the Commission still rejected the effective marketing theory as a justification. AstraZeneca intentionally tried to hide this theory at the time of the application and only relied upon it when the SPC grants were challenged.[73]

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[68] *Id.*, at para. 773.
[69] *Id.*, at para. 605.
[70] *Id.*, at para. 649.
[71] Case C-127/00, *Hässle v. Ratiopharm*, [2003] ECR I-14781.
[72] Within the meaning of Council Directive 65/65/EEC of 26 January 1965 on the approximation of provisions laid down by law, regulation or administrative action relating to proprietary medicinal products, 1965 OJ L 229, p. 63.
[73] Commission Decision, *supra* note 8, para. 667.

3.2.2 Harm to Competition

As to harm to competition, the Commission, by referring to established case law and a more recent decision of the Court of First Instance (CFI) in particular,[74] held that Article 82 EC only requires that the conduct *is capable of having the effect* of restricting competition.[75] Accordingly, the Commission rejected AstraZeneca's allegation that its behavior did not actually delay market entry of generic drugs, since the SPC was not granted in some Member States, since the SPC was set aside in other States before the expiry of the patent, and since there were other reasons that prevented generic drug producers from entering the market.[76] According to the Commission, an IP right which has been granted is presumed to be valid; and the generic drug producers had to invest time, effort and money to challenge AstraZeneca's SPCs.[77]

3.2.3 Harm to the Final Consumers Required?

According to the US consumer welfare approach, Section 2 of the Sherman Act is not considered to be violated without a showing of harm to consumers.[78] In contrast, the ECJ and the CFI still most recently confirmed that Article 82 EC also bans conduct that only creates *indirect prejudice* to consumers through its *impact on the effective competition structure*.[79]

In *AstraZeneca*, the Commission seems to go beyond this holding of European courts by also arguing that AstraZeneca's misrepresentations where capable of harming the interests of domestic health care systems and ultimately of consumers by excluding generic drugs and reducing price competition.[80] Yet, by applying this stricter approach, the Commission does not necessarily advocate changing the interpretation of Article 82 EC. In Europe, consumer welfare increasingly gains support as the ultimate goal of competition law. In September 2006, shortly after the *AstraZeneca* decision, also the CFI explicitly supported this view and held that an agreement can only be considered as being restrictive in the sense of Art. 81(1) EC if it is 'to the detriment of the final consumer.'[81] This ruling is still in need of confirmation by the ECJ.[82] In other words, Europe is reconsidering whether it should depart from protecting the 'competitive structure' as a requirement for a

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[74] Joined Cases T-24/93, T-25/93, T-26/93 and T-28/93, *Compagnie martime belge and others v. Commission*, [1996] ECR II-1201, para. 149.

[75] *Id.*, para. 758 and 765.

[76] For AstraZeneca's arguments *see* Commission Decision, *supra* note 8, paras 622-625.

[77] *Id.*, at para. 765.

[78] *Cf.* FTC's Rambus decision, *supra* at 2.1.3.

[79] See Case C-95/04 P, *British Airways v. Commission*, [2007] ECR I-2331, para. 106; Case T-201/04, *Microsoft v. Commission*, [2007] ECR II-0000, para. 664 (not yet officially reported). The situation may be different for specific forms of abusive behavior, like the one stipulated by Art. 82(b) EC which directly refers to harm to consumers.

[80] Commission Decision, *supra* note 8, paras 771 *et seq*.

[81] Case T-168/01, *GlaxoSmithKline v. Commission*, [2006] ECR II-2969, para. 171.

[82] The interpretation of Art. 81(1) EC by the CFI in *GlaxoSmithKline* in currently on appeal before the ECJ; *see* Joined Cases C-501/06, C-513/06, C-515/06 and C-519/06.

restraint of competition and should additionally require actual harm to the final consumer like under US law. Still, the ECJ and the CFI maintain the traditional approach with regard to Article 82 EC.

3.2.4 The European Efficiency Defense

In comparison to US law on Section 2 Sherman Act, the Commission did not weigh the pro and anticompetitive effects of AstraZeneca's conduct in the sense of an efficiency analysis. This, however, does not mean that procompetitive effects – or efficiencies – are not to be taken into account under EC law. The ECJ has accepted a so-called efficiency defense for Article 82 in its recent *British Airways* judgment:

> [T]he exclusionary effect [of BA's bonus system], which is disadvantageous for competition, may be counterbalanced, or outweighed, by advantages in terms of efficiency which also benefit the consumer. If the exclusionary effect of that system bears no relation to advantages for the market and consumers, or if it goes beyond what is necessary in order to attain those advantages, that system must be regarded as an abuse.[83]

This approach, which had generally been proposed by the Commission for its current review of the application of Article 82 already in December 2005,[84] has some similarities to the interpretation of Section 2 Sherman Act. Both laws put the burden on the defendant undertaking to demonstrate that there are outweighing procompetitive effects.[85] However, the European efficiency defense differs from US law in requiring that such efficiencies also benefit the consumer.[86] In the EU, the law applies a 'consumer surplus standard,' and thereby takes into account the distributive effects of a specific conduct, as compared to a 'total welfare standard' supported by the Chicago School proponents in the US.

In *AstraZeneca*, the Commission came closest to considering efficiencies in the response to AstraZeneca's allegation that Article 82 should not be applied to the ownership of an IPR.[87] The Commission gave a very short answer by distinguishing between the holding and the acquisition of an IPR. The abuse happened before AstraZeneca acquired its SPCs and, therefore, the property laws in the Member States are not affected by qualifying AstraZeneca's misleading conduct as an abuse in the sense of Article 82 EC.[88] The Commission went on to explain that an abuse

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[83] Case C-95/04 P, *British Airways v. Commission*, [2007] ECR I-2331, para. 86.

[84] *See* paras 77-92 of the DG Competition discussion paper on the application of Article 82 of the Treaty to excluionsary abuses, <http://ec.europa.eu/comm/competition/antitrust/art82/discpaper2005.pdf> (as of January 31, 2008); *see* also RIZIOTIS, Effeciency Defence in Article 82 EC, in: CONDE-GALLEGO/ENCHELMAIER/MACKENRODT (eds), Art. 82 EC: New Interpretation, New Enforcement Mechanisms? (2008 forthcoming).

[85] As to the *Rambus* case, *see supra* at 2.1.1.

[86] Here, both the ECJ in *British Airways* and the European Commission in its discussion paper transfer the requirements for an exemption under Art. 81(3) EC to Article 82.

[87] Commission Decision, *supra* note 8, paras 741-743.

[88] *Id.*, at paras 741 *et seq*.

may also consist in the misuse of administrative and judicial procedures and regulations since the concept of abuse is not limited to abuse in the market.[89]

These arguments, however, are far from satisfying a full efficiency analysis. The latter would require a weighing of the anticompetitive effects caused by the exclusion of generic drug producers by the SPCs and the reduction on price competition it entails (allocative efficiency) against the procompetitive effects the SPCs might cause by creating additional incentives to innovate for the right holder. The reason for not even considering such an assessment might well be that the Commission did not want to question and replace the legislative decision made under Article 19 of the SPC Regulation. This concern is well expressed in the above-cited statement of Commissioner *Neelie Kroes* according to which it is not for the dominant undertaking to decide on the period of protection. Whereas, in *Rambus*, the FTC did not exclude an efficiency defense as a justification for the deceptive conduct as a matter of principle,[90] in *AstraZeneca*, the European Commission declined to take into account possible procompetitive effects. This, however, may well be explained by the factual differences of the two cases under review.

3.3 Causation not Required for Article 82 EC

In contrast to the FTC *Rambus* decision,[91] the European Commission did not deal at all with the issue of causation. This is startling for basically two reasons: First, the wording of Article 82 does not prohibit abuse as such, but only the *abuse of a market dominant position*. Second, if Article 82 EC had to be interpreted in this sense of requiring causation there would be no violation of Art. 82 EC by AstraZeneca. AstraZeneca did not use its market power to acquire the SPCs. Also a non dominant undertaking would have been able to behave like AstraZeneca and acquire SPCs. AstraZeneca's market dominance was merely coincidental and had no influence on its abuse. By not requiring causation, *AstraZeneca* confirms the view that Art. 82 EC only requires market dominance and abuse, but no causal link between the two.

This view is in line with the case law of the ECJ.[92] Already in the early *Continental Can* decision of 1972, the Court, despite the wording of Article 82 (ex-Article 86), explicitly rejected the requirement of a causal link between the dominant position and the abuse,[93] enabling Community institutions to use Article 82 EC as a legal basis for controlling mergers that lead to a strengthening of market dominance. Most clearly, the view that the abuse does not have to depend on market dominance, was summed up by the Court in *Hoffmann-La Roche*:

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[89] *Id.*, at 743.

[90] *See supra* at 2.1.1.

[91] *See supra* at 2.1.3.

[92] For a critical view, *see* EILMANSBERGER, How to Distinguish Good from Bad Competition under Article 82 EC: In Search of Clearer and More Coherent Standards for Anticompetitive Abuses, 42 C.M.L. Rev. 129, 141-146 (2005).

[93] Case 6/72 R, *Europemballage Corporation and Continental Can Company v. Commission*, [1972] ECR 215, para. 27.

> For the purpose of rejecting the finding that there has been an abuse of a dominant position the interpretation suggested by the applicant that an abuse implies that the use of the economic power bestowed by a dominant position is the means whereby the abuse has been brought about cannot be accepted. The concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of the market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.[94]

Abuse in the sense of Article 82 EC is therefore very different from monopolization in US terms. According to European understanding, a dominant undertaking carries special responsibility regarding – residual – competition that still exists in the market. Article 82 EC prohibits such undertaking to harm competition in that market whether the ability to cause such effects by the conduct in question depends on its market dominant position or not. Under Article 82 EC, market dominance is only required to identify the addressees of the prohibition. It is not a necessary part of the definition of the prohibited conduct.

This view on causation of course extends the scope of application of Article 82 EC into the field of unfair competition. One might doubt whether this is appropriate. Yet, AstraZeneca's dominant position was very relevant in the light of protecting competition effectively. AstraZenecs's deceptive conduct had a much larger negative impact on competition and consumers because of its market dominance.[95] Market dominance in the PPI market would have enabled AstraZeneca to continue to charge supra-competitive prices during the full term of protection provided by the SPCs. In contrast, a non-dominant firm cannot charge supra-competitive prices in the first place; therefore the unjustified grant of SPCs to such a firm would not considerably distort price competition despite the exclusion of generic drugs from the market.

4. The Competition/IP Interface

Today it is generally held that both competition (antitrust) law and IP laws are complementary elements of a dynamic, procompetitive and innovation enhancing system.[96] IPRs create incentives to innovate by preventing competitors from free-riding. Competition policy guarantees that firms do not exclude competition for better products and that right holders still feel the pressure of competition and that they will continue to invest returns from strong IP protection in innovation. Still, in *Rambus* and *AstraZeneca*, the FTC, the D.C. Circuit and the European Commission gave little or almost no weight to the overall assessment of the cases in view of the innovation that is expected to be brought about by this dynamic competition system.

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[94] Case 85/76, *Hoffmann-La Roche v. Commission*, [1979] ECR 461, para. 91.

[95] The Commission refers to these consequences with regard to the gravity of AstraZeneca's conduct for setting the fines; *see* Commission Decision, *supra* note 8, para. 914.

[96] *See*, for instance, HOVENKAMP/JANIS/LEMLEY, IP and Antitrust, § 1.3 (loose-leaf ed. 2008).

Therefore, we will now ask whether the decisions also satisfy in the light of the overall goal of guaranteeing an integrated, innovation enhancing system of IP and competition law.

4.1 Dynamic Competition in Rambus

In applying Section 2 Sherman Act, the FTC at least felt prepared to look at procompetitive effects of Rambus's conduct.[97] Still, the FTC did not take into account that Rambus was a highly innovative firm that invested considerable financial means in its R&D activities. Rambus seems to have made its innovation all by its own efforts. By its deceptive conduct in the framework of JEDEC, Rambus did not spy on the innovation made by others. It was only able to give its own R&D activities direction, which later enabled it to control the standard. Hence, Rambus did not acquire a right by misuse of the patent system, but at best against the rules of the standard-setting organization. Hence, the FTC has taken into account the procompetitive effects of the standard-setting procedure, whereas both the FTC and the D.C. Circuit ignored the procompetitive effects of the patent system as such.

Here, we need to remember that the FTC imposed a compulsory license on Rambus in favor of all interested undertakings. Such compulsory license may well undermine the procompetitive effects accruing from the patent system. This is a standard concern with regard to a duty to license in general, including a duty to license in the situation of a *de facto* standard. US antitrust enforcers are very reluctant to support a duty to license under Section 2 Sherman Act[98] and have never ordered a compulsory license in the case of a *de facto* standard.[99] Hence, the *Rambus* case raises the critical question whether standardization by SSOs and *de facto* standards can be treated differently with regard to a duty to license despite the fact that the patent system creates identical incentives to innovate. Just like in a case of a *de facto* standard, the question is why Rambus should be blamed for imposing a market price on its patents that were acquired lawfully under the patent laws.

Perhaps there are two reasons why the cases of standardization within SSOs and *de facto* standards deserve different treatment. First, it may be argued that it still makes a difference how the later IP holder acquired the standard, either by independent business decisions in the market or deceptive conduct within an SSO. This, however, is rather an argument of morals and not of economic reasoning and should be addressed under different legal principles, like the one on contract fraud.[100]

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[97] *Supra* at 2.1.1.

[98] See eg HOVENKAMP/JANIS/LEMLEY, Unilateral Refusals to License in the US, in: LÉVÊQUE/SHELANSKI (eds), Antitrust, Patent and Copyright, 12 (2005); HOVENKAMP/JANIS/LEMLEY, IP and Antitrust, Chapter 13 (loose-leaf ed. 2008).

[99] Provided that the interface information of Microsoft's Windows operating system is protected by IPRs, the European CFI has maintained such a duty to license in the *Microsoft* case; see Case T-201/04, *Microsoft v. Commission*, [2007] ECR II-0000 (not yet officially reported).

[100] In *Rambus, Inc. v. Infineon Technologies AG*, 164 F. Supp. 2d 743 (E.D. Va. 2001), a jury actually held that Rambus committed fraud by conceiling information within JEDEC. This decision, however, was overturned and remanded in *Rambus, Inc. v. InfineonTechnologies AG*, 318 F.3d 1081 (Fed.Cir. 2003). *See* also *supra* note 47.

Second, and more convincingly, distinguishing the two cases creates an incentive for the industry to prefer standardization within SSOs. This might have the particular advantage of maintaining incentives to innovate for all members of the SSO during the process of standardization, of guaranteeing undistorted access of competitors to the technology and of keeping prices low for consumers.

This latter argument was obviously ignored by the D.C. Circuit in its *Rambus* decision.[101] By rejecting the monopolization claim, the D.C. Circuit purely relies on the Schumpeterean hope in creative destruction, namely that the competitor will be attracted by monopoly royalty rates and try to replace Rambus as the dominant firm. Such hope is unlikely to become reality in a world in which customers will only accept the standard controlled by Rambus. From an innovation theory perspective, it may be much more important to make sure that competitors have access to the technology and can compete for higher quality within the standard. Of course Rambus did not refuse to license as such. However, by banning deceptive conduct in standard-setting proceedings and by controlling the royalty rates of the patent abuser, antitrust enforcers would facilitate access to the standard and make it more likely that innovation will be generated within the standard. Even more imporantly, guaranteeing trust in standard-setting proceedings will enable the industry to change the standard when better technology appears from outside, whereas one has to rely exclusively on Schumpeterean competition, like now after the D.C. Circuits decision in *Rambus*, if the law, including antitrust law, does not promote trust within SSOs.

4.2 Dynamic Competition in AstraZeneca

In the context of the European efficiency defense, it has already been mentioned that the European Commission did not get into the analysis of the effects of AstraZeneca's conduct on innovation.[102] The question to be answered here is to which results a full-fledged analysis of the pro and anticompetitive effects, including effects on innovation, would lead.

The question is a very difficult one since it is not possible to assess the effects of the patent system on innovation in general. The legislature can base its weighing of pro and anticompetitive effects only on very rough and generalized assumptions; and it is not for competition law enforcers to question these assumptions in individual cases. This is even more so with regard to the SPC system, which was implemented in 1992, but was also made applicable to patents granted much earlier. This is why, in the following, it is better to look at the specific effects of AstraZeneca's conduct instead of questioning the validity of the EC innovation policy concerning SPCs.

The very effect and objective of AstraZeneca's strategy was to acquire SPCs for which it did not legally qualify. What are the pro and anticompetitive effects of the grant of such a right with regard to price, output and, last but not least, innovation?

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[101] *See* already the criticism expressed at 2.2 *supra*.
[102] *Supra* at 3.2.4.

Of course, the immediate effect of the grant of unfounded SPCs consists in excluding generic drug producers from the market and of keeping prices high at least for the extended term of protection. However, the grant of SPCs may also produce outweighing procompetitive effects in the form of incentives to innovate. The date fixed by Article 19 of the SPC Regualtion, however, seems highly arbitrary.

One might even doubt whether the SPC Regulation, regarding its retroactive effect, creates incentives to innovate at all. Investment in innovation precedes the innovation itself and finally the acquisition of the right. The recitals of the SPC Regulation justify the retroactive effect by the need to 'enable the Community pharmaceutical industry to catch up to some extent with its main competitors who, for a number of years, have been covered by laws guaranteeing them more adequate protection.' Thereby the European legislature tries to promote the competitiveness of European companies in international markets; the argument of inducing innovation is not mentioned. The only pro-innovation argument which can be made in favor of retroactivity of the SPC Regulation is that the extension of patent duration is granted to undertakings that invested in R&D in the past and because of the extension will invest more in future R&D. The latter assumption, however, relies more on belief and hope than on verifiable data.

For the decion in *AstraZeneca*, we may draw two conclusions. First, the incentive theory does not justify the rather arbitrary rule on retroctivity in Article 19 of the SPC Regualtion. There is no reason why AstraZeneca would be more likely to invest its returns from the SPCs, if the first marketing allowance had not been granted in 1987 but in 1988. Secondly, whether AstraZeneca would invest its returns from the SPCs – or how much of them – in R&D for other drugs cannot reasonably be assessed. AstraZeneca may as easily be tempted to invest higher returns in other 'evergreening' strategies, like increased advertising and marketing efforts concerning the trandemark Losec, with the objective to extend its market power even beyond the expiry of the SPCs. This being said, it is clear that competition law enforcers are not well placed to make assessments as to the effects of specific regulation on the incentives to innovate. This is why it is wisest to accept the decisions of the legislature in principle. On the one hand competition law enforcers may only restrict the exclusivity of IPRs if they can produce specific justification. On the other hand, competition law enforcers have to intervene whenever dominant undertakings uniltaterally circumvent IP laws and, based on deception in particular, manage to acquire rights for which they do not qualify and thereby harm competition.

5. Conclusion

The foregoing analysis supports the decisions by the US FTC in *Rambus* and the European Commission in *AstraZeneca*, but rejects the soundness of the policy of the D.C. Circuit in *Rambus*. With regard to unilateral conduct, US law and EC law apply different concepts which converge only to a very limited degree, by using for instance the concept of exclusion and harm to competition. Fundamental conceptual differences would possibly lead to different results if the same cases were to be decided on the other side of the Atlantic.

In contrast to Article 82 EC, Section 2 of the US Sherman Act does not require prior existence of market dominance and could therefore more easily ban deceptive conduct leading to the acquisition of IPRs. This deficiency of EC law may prove to be most detrimental in cases of patent hold-ups in the framework of standard-setting organizations.

Apart from that, it may well be easier to justify a violation of Article 82 EC than of Section 2 Sherman Act. European practice still does not require proof of any direct detrimental effect on consumers as a general rule under Art. 82 EC; it is more hesitant to accept an efficiency defense by requiring that the final consumer benefit from the efficiency gains; and it does not require a causal link between the existence of market power and abuse. The latter difference enables competition law enforcers in Europe to apply Article 82 EC to deceptive conduct that would otherwise be considered a mere act of unfair competition. This makes sense since such behavior of a dominant undertaking can considerably harm competition in the common market to the detriment of consumers. Below the threshold of Article 82 EC, the analysis also demonstrates that European law so far cannot effectively address anti-competitive conduct of non-dominant firms based on deception in particular. European rules against unfair competition relating to the relationship between undertakings are especially needed for guaranteeing the well-funtioning of standard-setting organizations.

The analysis also demonstrates that competition and antitrust law enforcers will have difficulties to assess the effects of the acquisition of patents by deception on future innovation and will therefore tend to focus on the effects on price competition. Such latter practice does not necessarily have to lead to erroneous results. Enforcers should, however, keep in mind that standardization in the framework of SSOs is procompetitive in principle and that deceptive conduct in violation of the rules of such SSOs is anticompetitive.

Unfortunately, this advise was not heard by the D.C. Circuit in the *Rambus* case by almost stubbornly sticking to the Chicagoan belief that monopoly prices will only promote competition. In a situation of standardization in which Schumpeterean competition does not work, antitrust and competition laws have to promote trust by banning deceptive conduct as part of a policy protecting dynamic competition. Only then the players in the industry will be able to swiftly switch to new and better technology without having to rely on Schumpeteran competition.

Finally, in dealing with cases in which undertakings managed to acquire rights by deceptive conduct *vis-à-vis* patent offices, enforcers should not question the validity of the weighing of the pro and anticompetitive effects under existing legislation.

Intellectual Property and Article 82 EC

Michael Kort

1. Introduction

Conflicts may arise between IP rights, in particular the exclusive rights vested upon the patentee, and the imperative to preserve competitive markets.[1] IP law does not give the holder of an IP right immunity from being accused of violation of antitrust law. Therefore, IP law does not provide a *carte blanche* to violate the antitrust laws. If a product or service that an undertaking sells incorporates IPRs, that does not mean that anything one does with that product or service is immune. This is not only the European approach, but that of the US as well: As the D.C. Circuit in *Microsoft* explained, the proposition that a firm has 'an absolute and unfettered right to use its intellectual property as it wishes [is] no more correct than the proposition that use of one's personal property, such as a baseball bat, cannot give rise to tort liability.'[2]

2. The *AstraZeneca* Decision of the Commission[3]

2.1 Introduction

With regard to the interplay of IP law and competition law, the pharmaceutical industry is a very important field of legal research. *Joseph Straus* has always been particularly interested in legal questions concerning the pharmaceutical industry. In view of its characteristics (role of innovation, IP rights, exceptionally long timeframe for product development, major investments, involvement of the states in product pricing, etc.), the pharmaceutical industry has always raised difficult questions of competition law.[4] The *AstraZeneca* case is a good example of these difficulties.

2.2 Outline of the Decision

Article 82 EC, one of the most important European antitrust provisions, deals with the abuse of a dominant position. A very significant case concerning the relation-

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1 COCO, Patent Immunity from Antitrust: the Abbott Cases in the United States, 28 ECLR 494 (2007); HIRSBRUNNER, Neues aus Brüssel zum Verhältnis von Patent- und Kartellrecht: Die AstraZeneca-Entscheidung der Europäischen Kommission, 2005 EWS 488, 489.

2 *United States v. Microsoft Corp.*, 253, F.3d 34, 63 (D. C. Cir. 2001).

3 Commission Decision 2006/857/EC of 15 June 2005, Case No. COMP/A.37.507/F3 – AstraZeneca, OJ L 332, p. 24.

4 *See* DIENY, The Pharmaceutical Industry and Competition Law between the Present and the Future, 28 ECLR 223 (2007); HIRSBRUNNER, *supra* note 1, at 490.

ship of antitrust law and patent law is the *AstraZeneca* case.[5] The Commission condemned two of AstraZeneca's practices as violating Article 82 EC and furthermore imposed a 60 million Euro fine for AstraZeneca's abuse of its dominant position.

The two alleged anti-competitive practices consisted of withdrawing the marketing authorization for the capsule form of the proton-pump inhibitor Losec in some Member States and, in addition, misusing the Supplementary Protection Certificate (SPC) system to gain additional patent protection. *AstraZeneca* represents the Commission's first decision on patent 'evergreening' (the policy of a patentee of extending the once acquired market power beyond the term of protection of the patent).

Concerning the first practice, the Commission alleged that the withdrawal of the marketing authorization had the effect of preventing generic manufacturers and parallel importers from accessing the market. Therefore, it was regarded as an abuse of a dominant position. According to the Commission, AstraZeneca would seem to have initiated this withdrawal only to stop generic drugs from entering the market and halt parallel imports.[6]

Further, the Commission argued that the withdrawal of marketing authorization would also affect parallel importers as they would not be able to import a drug which is no longer authorized into a Member State. [7]

In addition, the Commission stated that it was another violation of Art. 82 EC that AstraZeneca had concealed the date on which it obtained the first marketing authorization for Losec from some EU patent offices.[8] As a consequence, *AstraZeneca* obtained patent protection that it would not have been entitled to if no such misrepresentation had taken place.

2.3 Withdrawal of Marketing Authorization

The withdrawal of the marketing authorization by *AstraZeneca* for the capsule form of Losec did not *per se* prevent manufacturers of generic medicinal products from entering the market. However, the consequence of the withdrawal at the time was that these manufacturers of generic drugs were unable to benefit any longer from the abridged procedure because they were not able to rely on the scientific data that had been granted by the marketing authorization holder of the reference medicinal product. Although, as an alternative the manufacturer of a generic product can still submit a full self-standing application or possibly a bibliographic application,[9] this would increase the rival's costs. The essence of increasing the rivals' costs is that the dominant undertaking raises the competitor's costs relative to its own, resulting in inefficiencies for the competitor.[10]

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[5] HIRSBRUNNER, *supra* note 1, at 488; SEIDEL, Europäische Missbrauchsaufsicht nach AstraZeneca (2008); JONES/SUFRIN, EC Competition Law, 581 *et seq*. (3rd ed. 2008).

[6] Commission Decision 2006/857/EC, *supra* note 3, paras 800 *et seq*.

[7] Commission Decision 2006/857/EC, *supra* note 3, para. 858.

[8] Commission Decision 2006/857/EC, *supra* note 3, paras 648 *et seq*.

[9] MANLEY/WRAY, New pitfall for the pharmaceutical industry, 1 J. INT. PROP. L. & PRACT. 266, 267 *et seq*. (2006).

[10] JONES/SUFRIN, *supra* note 5, at 585.

Pharmaceutical undertakings may decide to withdraw marketing authorizations in a variety of circumstances. So, for example, a company may have developed an improved version of a drug or the drug may be subject to some pharmacovigilance issues.[11] A marketing authorization holder is not obliged to maintain registration indefinitely. A pharmaceutical undertaking may, for example, withdraw the authorization because it is too costly to continue marketing the drug or because the undertaking has developed an improved formulation.[12]

The Commission correctly acknowledged the right for a pharmaceutical company to take business decision in line with commercial policy. However, it stressed that such business decision should not undermine the competitive process, generating foreclosure effects in the market. In particular, the Commission argued that there was no acceptable justification for the selective deregistration of Losec capsule other than the intent to delay the entry of generic manufacturers and of parallel traders until the improved version of omeprazole's successor, esomeprazole, was ready to be marketed.[13]

According to the Commission, it was neither the superior quality of the tablet version nor its enhanced effectiveness with respect to the capsule formulation (both legitimate reasons to switch from one to another formulation), but the anticompetitive goal of foreclosing the market to the detriment of competitors (and ultimately of final consumers) that determined AstraZeneca's strategy.[14]

In such cases, although efficiency considerations under the doctrine of 'efficiency defence' applicable to Article 82 EC may have to be made,[15] AstraZeneca could neither justify its abusive behavior by an efficiency defense nor by any other objective justification like consumer safety and health.[16] *Inter alia*, it has to be taken into consideration that its product Losec was very successful.

A consequence of the Commission's position in *AstraZeneca* is that a marketing authorization holder may violate antitrust law by making a commercial decision to withdraw marketing authorization, if this withdrawal may make it more difficult or more costly for a generic drug producer to compete. As pointed out above, raising the competitor's costs may very well be regarded as abusive conduct although in such cases of 'non-price predation' the line between normal competition and abusive conduct is difficult to draw. [17]

The Commission's decision in *AstraZeneca* also has to be regarded in view of the changes to European pharmaceutical regulation, which were already foreseeable

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[11] LAWRANCE/TREACY, The Commission's *AstraZeneca* decision: delaying generic entry is an abuse of a dominant position, 1 J. INT. PROP. L. & PRACT. 7, 8 (2005).

[12] MANLEY/WRAY, *supra* note 9, at 268.

[13] Commission Decision 2006/857/EC, , *supra* note 3, para. 807.

[14] NEGRINOTTI, The AstraZeneca Case, College of Europe, European legal studies, Research papers in Law, 4/2007, at 7, available at <www.coleurop.be/file/content/studyprogrammes/law/studyprog/pdf/ResearchPaper_4_2007_Negrinotti.pdf> (as of January 2008).

[15] ROUSSEVA, Abuse of Dominant Position Defences, in: AMATO/EHLERMANN (eds), EC Competition Law – A critical assessment, 377, 421 *et seq.* (2007).

[16] ROUSSEVA, *supra* note 15, at 417 *et seq.*

[17] JONES/SUFRIN, *supra* note 5, at 585.

at the time of the decision. As of October 30, 2005, it is no longer possible to prevent generic entry by withdrawing a European reference product. This means that if a product has been commercialized at any time anywhere in the EU, a generic entrant can apply for marketing authorization under any national authority.[18] Therefore, the Commission's decision was not 'surprising' in contrast to the comment of Lawrence/Treacy on this decision.[19]

As a consequence, the withdrawal of the marketing authorization by *AstraZeneca* was indeed a violation of Art. 82 EC.

2.4 Misuse of the SPC System

Pharmaceutical companies may try to reinforce the legal protection granted to the originally patented pharmaceutical product by filing applications for Supplementary Protection Certificates (SPC). *AstraZeneca's* misrepresentations in its SPC applications consisted, in the view of the Commission, in providing the wrong date for calculating the duration of the supplementary protection. At the time at which *AstraZeneca* made the SPC applications, the meaning of the 'first authorization' of a drug was unclear and national patent offices had differing views, some taking the date to refer solely to the first grant of marketing authorization in the EU/EEA and some picking the later date on which a price or reimbursement level had been agreed to with the relevant national authority.[20] However, the Commission's view that even if the obligations imposed on a dominant firm by national regulations are uncertain, the special duties of a dominant firm require it to interpret those obligations in a way that does not tend to exclude rivals, cannot be considered as being 'particularly questionable.'[21] This is particularly because it was clear that *AstraZeneca* deliberately gave misleading information to several national patent offices about the date when the first EU Member State had granted marketing allowance for the drug.

Concerning the alleged misuse of the SPC system, on the one hand, such misuse would be a matter for the national IP authorities to deal with. But if *AstraZeneca* had indeed, as the Commission stated, deliberately provided an incorrect date in order to obtain an SPC, the decision regarding the consequences of this behavior concerns Art. 82 EC. Therefore, on the other hand, it would be a matter falling under the competence of the Commission, particularly in view of the effect on trade between Member States' criterion, which is clearly fulfilled in the *AstraZeneca* case.

Therefore, it is not 'arguable whether any potential competition claim should have been brought before the national competition authorities as the effect on competition would have been limited to the territory of a specific Member State.'[22] It

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[18] LAWRANCE/TREACY, *supra* note 11, at 9.
[19] LAWRANCE/TREACY, *supra* note 11, at 9.
[20] LAWRANCE/TREACY, *supra* note 11, at 7; *see* also Case C-127/00, *Hässle AB v. Ratiopharm GmbH*, [2003] ECR I-14781.
[21] KALLAUGHER/WEITBRECHT, Articles 81 and 82: The Year in Review, 28 ECLR 316, 320 (2006).
[22] As is pointed out by MANLEY/WRAY, *supra* note 9, at 270.

cannot be stated that 'the European Commission may have acted disproportionately, contravening the principle of subsidiarity by ruling on the SPC issue'.[23] Further, it has to be taken into account that the SPC is based upon Article 19 of a directly applicable EC Regulation.[24]

AstraZeneca has made use of three different types of dates in the framework of the two rounds of SPC application between 1993 and 1994.[25] The Commission could therefore reasonably infer[26] that 'the purpose underlying AZ's strategy for omeprazole was to strengthen its position on the market by delaying the entry of generic versions of omeprazole and to create extra hurdle for generic firms.'[27]

With regard to the SPC abuse, it is evident how *AstraZeneca* 'has played around' the relevant date in order to obtain a protection it was not entitled to. Trying to unlawfully obtain an IPR, by providing misleading information to national administrative authorities, does neither belong to the specific subject matter of the IPR (the SPC in the case), nor does it steer innovation (on the contrary if such a practice was not sanctioned there would be the serious risk of undue extension of protection to the detriment of further innovation and finally of consumers). This is apparent in the difference between the *AstraZeneca* case and other cases ruled by the ECJ where the IPRs were lawfully acquired or obtained and the holder was alleged of using them in an anticompetitive manner (in refusal to license cases, for instance).[28]

2.5 Tensions between National Patent Law and European Antitrust Law?

The *AstraZeneca* case shows that tensions between patent law and European antitrust law may occur. However, these tensions can be solved in misrepresentation cases quite easily: AstraZeneca's alleged misrepresentation can be regarded as an abuse of a dominant position. This behavior may have an effect on the trade between member States. Therefore, it is not a matter which 'should have been more appropriately dealt with by national courts under national law.'[29] It is too shortsighted to state that patent issues 'fall within the competence of the national authorities that grant, withdraw, and enforce patents and SPC.'[30]

Even if it has been correctly observed that IPR law remedies exist, that does not exclude the possibility to apply competition law provisions, if the conditions for antitrust infringements are fulfilled, particularly because IPR remedies may be unsatisfactory or unavailable in particular circumstances.[31]

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[23] MANLEY/WRAY, *supra* note 9, at 271.
[24] Council Regulation (EEC) No. 1768/92 of June 18, 1992 concerning the creation of a supplementary protection certificate for medicinal products, [1992] OJ L 182, p. 1.
[25] Commission Decision 2006/857/EC, *supra* note 3, para. 246 and 646.
[26] NEGRINOTTI, *supra* note 14, at 2.
[27] Commission Decision 2006/857/EC, *supra* note 3, para. 677.
[28] NEGRINOTTI, *supra* note 14, at 8.
[29] MANLEY/WRAY, *supra* note 9, at 270.
[30] MANLEY/WRAY, *supra* note 9, at 270.
[31] NEGRINOTTI, *supra* note 14, at 9.

2.6 Conclusion

Although the particular abuses in *AstraZeneca* are unlikely to be replicated, the case demonstrates that the Commission continues to be prepared to intervene in the pharmaceutical sector.[32] But *AstraZeneca* is not a case which 'highlights the fact that mere compliance with regulatory obligations is not enough to ensure compliance with Article 82,'[33] because compliance with regulatory obligations did not take place in this case.

The question arises whether companies holding a dominant position have a special responsibility to use their rights, from private or public origin, in a reasonable manner as regards conditions of third party access to the market.[34] It is very questionable whether the 'the clear answer should be "no."'[35] Although it may be true that pharmaceutical undertakings, even if holding a dominant position, 'naturally have the right to protect their inventions',[36] that does, however, of course not mean that they have any right to abuse their dominant position by obtaining an exclusive right by deceptive conduct.

The *AstraZeneca* decision does not constitute a 'revolution,' because it was neither the existence, nor even the 'exercising' of an IP which was fined, rather simply the alleged illegal extension of such right.[37]

Further, it cannot be argued that *AstraZeneca* raises the question whether 'European antitrust authorities should intervene in this way in an industry like pharmaceuticals, which is already heavily regulated and not yet fully harmonized across the EU.'[38] Although it is correct that the pharmaceutical sector is highly regulated both at the national and at Community level,[39] for the question of the applicability of Art. 82 EC it plays no role whether or not an industry is 'heavily regulated' or whether or not it is yet 'fully harmonized.' Article 82 EC does not contain any specific rules for particular sectors.

It is far too general and of no legal relevance to state that it may appear 'that the Commission in the *AstraZeneca* decision was encroaching upon the commercial freedom of *AstraZeneca*.'[40] The decision does not 'penalize AstraZeneca for misunderstanding the legal situation which was far from clear at the time of the alleged infringement'.[41] The Commission clearly pointed out in its decision that AstraZeneca 'persisted in its pattern of misleading representations and that its additional misleading representations did not relate to any particular interpretative theory.'[42]

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[32] LAWRANCE/TREACY, *supra* note 11, at 9.
[33] LAWRANCE/TREACY, *supra* note 11, at 9.
[34] DIENY, *supra* note 4, at 224.
[35] DIENY, *supra* note 4, at 225.
[36] DIENY, *supra* note 4, at 225.
[37] DIENY, *supra* note 4, at 224.
[38] LAWRANCE/TREACY, *supra* note 11, at 8.
[39] NEGRINOTTI, *supra* note 14, at 2.
[40] MANLEY/WRAY, *supra* note 9, at 269.
[41] LAWRANCE/TREACY, *supra* note 11, at 7.
[42] Commission Decision 2006/857/EC, *supra* note 3, para. 667.

In *AstraZeneca*, the delicate balance between innovation and competition was not at stake, since AstraZeneca's 'effort' did not deserve protection under IPR regime. Consciously concealing information cannot be held legitimate under EC competition law. This strategy can severely harm the competition in the market, artificially keeping competitors at the gate and thereby reinforcing and extending *AstraZeneca's* dominant position.[43]

3. The IMS Health Case

3.1 Introduction

Regarding the relationship of IP law and antitrust law under Article 82 EC, the question of an obligation to enter into a license agreement is also very important. Of particular interest in this respect is the *IMS Health* case. The *IMS Health* case is one of the most controversial antitrust cases in recent years.

IMS Health was the sole collector of regional sales data to the pharmaceutical industry in Germany. IMS supplied the data to its pharmaceutical customers in a particular database form known as 'bricks'. The IMS brick structure had become the industry standard. Changing to a different format would have been extremely difficult and costly for a pharmaceutical undertaking. Therefore, no one could compete against IMS without using some variation in this system. IMS however made such a variation impossible by refusing to license its IP in the 'brick' system.

3.2 The Commission's Interim Decision

In 2001, the Commission granted interim relief holding that IMS had abused its dominant position in the German market and required them to license the 'brick' structure to two competitors. The Commission pointed out in its *IMS* decision that 'the costs, competitive disadvantages and other problems … which pharmaceutical companies would incur if they were to switch from the this structure (*i.e.* the 1860 'brick' structure developed by IMS) to buy regional sales data formatted in another structure would be unacceptably high.'[44]

Further, the Commission stated that it was irrelevant whether it was technically feasible for IMS's competitors to develop an alternative brick structure, because the 1860 'brick' structure had become so standard in the industry that drug companies would not consider using data organized in any other way.[45]

Although the Commission recognized that an IP holder generally has the right to prevent others from using the subject matter of that right, it nevertheless found that there may be exceptional circumstances in which the refusal to grant a license may be an abuse of a dominant position.[46] Such refusal is already an abuse in view of the

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[43] NEGRINOTTI, *supra* note 14, at 8.

[44] Commission Decision 2001/165/EC of July 2, 2001, Case No. COMP D3/38.044 – *NDC Health/IMS Health: Interim Measures*, [2002] OJ L 59, p 18, para. 123.

[45] Commission Decision 2001/165/EC, *supra* note 44, para. 129.

[46] Commission Decision 2001/165/EC, *supra* note 44, paras 167-174

Commission if there is no objective justification for the refusal.[47] Because the Commission could not find any justification for IMS's refusal to license, it concluded that an abuse had occurred.

The interim decision by the Commission was suspended by an Order of the President of the CFI,[48] subsequently confirmed by an Order of the President of the ECJ.[49] The Commission later withdrew its decision, since a judgment by the Frankfurt Higher Regional Court allowed third parties to develop a brick structure very similar to the one patented by IMS. At the same time, the Frankfurt District Court, from which IMS has sought protection of its IP rights, submitted three preliminary questions to the ECJ, on the same issues discussed in earlier Commission decision.[50]

3.3 The ECJ's Decision

The ECJ recognized in 2004 that IMS could be ordered to grant a compulsory license on its patented structure.[51] However, the material conditions for this to happen were restrictively defined by the ECJ.[52] The ECJ pointed out:

> It is clear from that case-law that, in order for the refusal by an undertaking which owns a copyright to give access to a product or service indispensable for carrying on a particular business to be treated as abusive, it is sufficient that three cumulative conditions be satisfied, namely, that that refusal is preventing the emergence of a new product for which there is a potential consumer demand, that it is unjustified and such as to exclude any competition on a secondary market.[53]

In determining whether an IPR is 'indispensable' for purposes of Article 82, the ECJ took into account 'the degree of participation by users' and 'the outlay, particularly in terms of cost, on the part of the potential users' to switch.[54]

The ECJ finally held that:

> [T]he refusal by an undertaking which holds a dominant position and owns an intellectual property right in a brick structure indispensable to the presentation of regional sales data on pharmaceutical products in a Member State to grant a license to use that structure to another undertaking which also wishes to provide such data in the same Member State, constitutes an abuse of a dominant position within the meaning of Article 82 EC when the following conditions are fulfilled:

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47 Commission Decision 2001/165/EC, *supra* note 44, para. 174.
48 Case T-184/01 R, *IMS Health v. Commission*, [2001] ECR II-3193.
49 Case C-481 /01 P (R), [2002] ECR-3401.
50 HATZOPOULOS, Refusal to Deal, in: AMATO/EHLERMANN (eds), EC Competition Law – A Critical Assessment, 333, 338 (2007).
51 Case C-418/01, *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG*, [2004] ECR I-5039.
52 HATZOPOULOS, *supra* note 50, at 338.
53 ECJ, Case C-418/01, *supra* note 51, para. 38.
54 Case C-418/01, *supra* note 51, para. 30.

- The undertaking which requested the license intends to offer, on the market for the supply of the data in question, new products or services not offered by the owner of the intellectual property right and for which there is a potential consumer demand;
- The refusal is not justified by objective considerations; and
- The refusal is such as to reserve to the owner of the intellectual property right the market for the supply of data of pharmaceutical products in the Member States concerned by eliminating all competition on that market.[55]

This can be described as a 'cumulative conditions approach.'

The main difference between this formula and that laid out by the Commission is that the ECJ requires a 'new products or services' element in its formula.[56]

The 'new product' requirement is apparently meant to protect an adequate reward for the right holder, and thus to mediate between the respect for the underlying rationale of national IP laws and the application of European competition law.[57] The 'new product' requirement is contentious. The controversies surrounding its rationale may be partly due to the fact that it has been applied in very differential factual settings.[58]

Further, the ECJ pointed out in the *IMS Health* case:

> [T]he exclusive right of reproduction forms part of the rights of the owner of an intellectual property right, and the refusal to grant a license, even if it is the act of an undertaking holding a dominant position, cannot in itself constitute abuse of a dominant position.[59]

This refers to the cases *Volvo*[60] and *Magill*[61]. Since the *Volvo* decision, it has been settled case law that the refusal to grant a license cannot in itself constitute an abuse of a dominant position. Starting from this observation, the ECJ in *IMS Health* further develops the idea expressed in *Volvo* and *Magill* that in 'exceptional circumstances' the exercise of an exclusive right may involve abusive conduct.[62]

The ECJ judgment in *IMS Health* came to the conclusion that the refusal to license was not justified by objective considerations.[63]

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[55] Case C-418/01, *supra* note 51, para. 52.

[56] DREXL, Abuse of Dominance in Licensing and Refusal to License: A 'More Economic Approach' to Competition by Imitation and to Competition by Substitution, in: Ehlermann/Antanasiu (eds.), European Competition Law Annual: The Interaction between Competition Law and Intellectual Property Law, 647, 653 (2007); FAULL/NIKPAY, The EC Law of Competition, 1300 (2nd ed. 2007); GLAZER, The *IMS Health* Case: A U. S. Perspective, 13 Geo. Mason L. Rev. 1197, 1204 (2006).

[57] SCHWEIZTER, Controlling the Unilateral Exercise of Intellectual Property Rights: A Multitude of Approaches but No Way Ahead? The Transatlantic Search for a New Approach, European University Institute, EUI Working Papers LAW 2007/31, at 11, available at <papers.ssrn.com/sol3/papers.cfm?abstract_id=1093243> (as of May 2008).

[58] SCHWEIZTER, *supra* note 57, at 15 *et seq.*

[59] Case C-418/01, *supra* note 51, para 34.

[60] Case 238/87, *Volvo v. Veng*, [1988] ECR 6211, para. 8.

[61] Joined Cases C-241 and 242/91 P, *RTE v. Commission* ('*Magill*'), [1995] ECR I-743, para. 49.

[62] DREXL, *supra* note 56, at 649.

[63] FAULL/NIKPAY, *supra* note 56, at 1300.

3.4 Conclusion

Although IMS as the dominant undertaking may have derived its grip on the market simply by virtue of being the 'first mover' and it may therefore have been tempting for the Commission to find IMS's behavior an abuse of a dominant position,[64] it should be taken into consideration that competition law accepts that an undertaking is forced to cooperate with rivals only in exceptional cases. The ECJ clearly saw this in its 2004 decision on *IMS Health*.

The *IMS Health* case shows, as well as the *AstraZeneca* case, that a 'tension' between IP law and competition law does either not occur at all or can at least easily be solved by respecting both the legally obtained existence as well as all legal forms of exercising IP rights. There is certainly no tendency that obtaining or exercising IP rights by a dominant undertaking leads as such to the assumption of abuse.

4. Obligation to Deal with Rivals

4.1 Introduction

The relationship of IP law and competition law may concern the question whether an obligation of the owner of an IP right to deal with rivals does exist. This obligation may either concern the obligation to enter into a license agreement or to supply rivals with goods or services.

4.2 The AstraZeneca Case and the Refusal to Deal

It is very questionable whether it is possible to compare the *AstraZeneca* case discussed above with the established category of abuse of a dominant position by a refusal to supply. The behavior of AstraZeneca, in particular the withdrawal of the Losec marketing authorization, can hardly be compared with a refusal to deal respectively with a refusal to enter into a license agreement. Although the withdrawal of the Losec marketing authorization may have at the time of the decision the consequence of depriving generic competitors of something they needed to be able to enter the market, it cannot be argued that the *AstraZeneca* decision has as a consequence that 'a dominant undertaking is obliged not only to continue to supply existing customers, but to supply all comers.'[65] The producers of generic products are mere competitors and not 'customers' or 'comers.'

Further, under EU case law, obligations to supply new customers thus far have been imposed only in very unusual circumstances, such as 'essential facilities' cases. Essential facilities require an infrastructure to which access is indispensable for market entry. A marketing authorization for an individual product, however, cannot be regarded as indispensable, as its existence does not preclude others from developing competing drugs for the same indication.[66]

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[64] GLAZER, *supra* note 56, at 1207.
[65] LAWRANCE/TREACY, *supra* note 11, at 8.
[66] LAWRANCE/TREACY, *supra* note 11, at 8.

In addition, it is very questionable whether it can be argued that 'there are similarities between the situation arising from AstraZeneca's conduct and case law on compulsory licensing'.[67] The term 'compulsory licensing' in this sense may insofar be confusing as it refers generally to IP law and not to competition law. However, as a consequence of the abuse of a dominant position by a refusal to license, an undertaking may be forced to enter into a license agreement. In *AstraZeneca* the Commission only imposed a fine on AstraZeneca.

Under EU law, a refusal to license will be an abuse of a dominant position only under exceptional circumstances, as the decisions *Magill* and *IMS Health* clearly show.[68] Such exceptional circumstances would usually only exist where the proposed licensee offered a new product. A generic copy as in the *AstraZeneca* case does, however, simply duplicate an already existing product, albeit this may be available at a lower price.[69] Therefore, *AstraZeneca* is not comparable with 'refusal to license' cases. *AstraZeneca* is not a case that can be compared with cases where the refusal to license can be regarded as an abuse of a dominant position.

5. Comparative Analysis: The intersection of IP Law and Antitrust Law under US Law

5.1 Introduction

Patent law and antitrust law both govern aspects of innovation, competition and commerce. At one of their intersections lies a defense available to any accused infringer: if a patentee misuses its patent rights by violating antitrust-like principles, that patentee may not assert its patent against any party. The violation need not rise to a full-fledged antitrust violation, even if most successful invocations of the misuse defense double as antitrust violation.[70] This is not only the case in the US, but as well in the EU.

Also certain improper forms of acquiring a patent are held to constitute 'patent misuse' sufficient to render the patent unenforceable. It is sometimes also said that such improprieties also violate Section 5 of the Federal Trade Commission Act § 5 or Section 2 of the Sherman Act, but in fact only subsequent efforts to enforce the patent that was fraudulently obtained may constitute a violation, whereas the acquisition of a patent by itself does not.[71]

Under US law, the patent misuse doctrine prohibits the misuse of patents in order to monopolize. The patent misuse doctrine is more frequently invoked defensively as a counterclaim by parties accused of patent infringement, but it can also serve as the basis for an affirmative claim of monopolization.[72]

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[67] LAWRANCE/TREACY, *supra* note 11, at 8.
[68] LANGER, Bundling, in: AMATO/EHLERMANN (eds), EC Competition Law – A Critical Assessment, 297, 326 (2007).
[69] LAWRANCE/TREACY, *supra* note 11, at 9.
[70] ADELMAN/RADER/KLANCNIK, Patent Law, 392 (2008).
[71] AREEDA/HOVENKAMP, Fundamentals of Antitrust Law, 262 (2003).
[72] *Virginia Panel Corp. v. MAC Panel Co*, 133 F.3d 860, 868 *et seq*. (Fed. Cir. 1997).

5.2 The Abbott Cases

US courts sometimes, however, have failed to find common ground when dealing with the antitrust and patent intersection. Thus, *inter alia*, the same monopolization claim against *Abbott* recently resulted in two opposite outcomes. Whereas in *Schor v Abbott Laboratories*[73] the Court of Appeals for the Seventh Circuit dismissed the 'naked' monopolization claim and granted an absolute immunity to the parent owner, in *In Re Abbott Laboratories Norvir Antitrust Litigation*[74] the District Court for the Northern District of California held that the defendant had abused its patents and monopolized the neighboring market.

These two decisions refer to two former decisions, *Eastman Kodak Co. v. Image Technical Services, Inc.* ('*Kodak II*')[75] and in *In Re Independent Services Organizations Antitrust Litigation* ('*Xerox*'),[76] concerning, *inter alia*, the relationship of IP and competition law.

In *Schor,* the Court of Appeals for the Seventh Circuit upheld a dismissal of a putative class action brought by Gary Schor, a consumer drug purchaser, against Abbott for a breach of Section 2 of the Sherman Act.

The alleged anti-competitive behavior concerned two HIV drugs manufactured by Abbott, namely of (1) Norvir, a protease inhibitor that stops the AIDS virus from copying itself into new cells, used both as a stand-alone drug and to 'boost' the effectiveness of other protease inhibitors; and (2) Kaletra, an HIV drug 'boosted' by Norvir and sold in a combined form with Norvir.

When used in doses high enough to work as a stand-alone protease inhibitor, Norvir causes serious side effects. It served better as a booster for other protease inhibitors. When Kaletra began to lose its market share, Abbott dramatically increased the price of Norvir but refrained from raising the price of Kaletra. Kaletra therefore became considerably cheaper than other Norvir-boosted protease inhibitors. Plaintiff Schor alleged that Abbott had charged too much for Norvir alone and too little for the Norvir-boosted Kaletra. He argued that, by raising the price of Norvir, the defendant had leveraged its monopoly on Norvir as a stand-alone drug in order to injure competition in the market for Norvir-boosted protease inhibitors, with the aim of driving them out of the market.[77]

This case concerns – in contrast to the cases *AstraZeneca* and *IMS Health* – questions of bundling. However, it is arguable that a test to assess the exclusionary effects of bundling may include elements of a similar test for refusal to supply.[78]

The Court acknowledged that 'some clever combination of prices' for Norvir and Kaletra could reduce the level of actual or potential competition. However, the Court made clear that 'there is no antitrust concern unless Abbott could make a

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[73] *Schor v. Abbott Laboratories*, 457 F.3d 608 (7th Cir. 2006).
[74] *In re Abbott Laboratories Norvir Antitrust Litigation*, 442 F. Supp. 2d 800 (N.D. Cal. 2006).
[75] *Eastman Kodak Co. v. Image Technical Services, Inc.*, 125 F. 3d 1195, 1218 (9th Cir. 1997).
[76] *In re Independent Services Organizations Antitrust Litigation*, 203 F.3d 1322 (Fed. Cir. 2000).
[77] *Schor v. Abbott Laboratories*, *supra* note 73, at 609.
[78] LANGER, *supra* note 68, at 324 *et seq.*

monopoly profit for itself by keeping other drugs off the market – and there is no good economic reason to think it could do so.'[79]

The Court did not follow the 'undisciplined monopoly-leveraging principle' of the Ninth Circuit in *Kodak II*. Under this principle, a patentee's refusal to license an IPR violates antitrust laws if the exercise of its rights was mere pretext for anti-competitive purposes. Instead, the court followed the Federal Circuit's decision in *Xerox*, under which legitimate exercise of a patent right can never support anti-competitive liability, unless specific exceptions occur.

In *Schor*, the court narrowed the reading of *Kodak II* as confined to refusal to license cases when the conduct exceeds the exclusionary scope of the patent.[80]

The Court of the Northern District of California in *In re Abbott Laboratories Norvir Antitrust Litigation* ('*In re Abbott*') came to the opposite conclusion. Here, a class action and complaint for actual and attempted monopolization under Section 2 of the Sherman Act were filed, in order to ban the same conduct carried out by *Abbott* seen above.[81]

In *In re Abbott*, the Court stated that 'plaintiffs provide evidence that defendant abused its patent rights to Norvir to maintain its monopoly in the boosted market' and that Kaletra's market share 'rose substantially above what it would have been absent the price increase.'[82]

Much of the difference to the Seventh Circuit's decision is caused by different interpretations of Abbott's scope of the patent by the two courts.[83] The scope of the patent grant defines the boundaries of the exclusivity and thus the area of the immunity from antitrust enforcement.

The *In re Abbott* order also stressed that the case is not a refusal to deal case, but a case of monopoly leverage to be assessed under *Kodak II*. In *Kodak II*, the Court pointed out that 'a monopolist who acquires a dominant position in one market through patents and copyrights may violate § 2 if the monopolist exploits that dominant position to enhance a monopoly in another market.'[84]

The District Court held in *In re Abbott* that the monopoly leveraging theory applies to Abbott's raising the price of its stand-alone patented drug. Further, it stressed that Abbott's patents were not to be considered as a valid shield against monopolization claims '*per se*' since in any case their scope was to be determined through the interpretation process and not asserted by the patentee.[85]

The District Court held that, although valid IP rights create a presumption of a legitimate business justification for anti-competitive conduct, the plaintiff submitted sufficient proof to reject *Kodak*'s business justification, as the record reflects evidence of pretext to mask anti-competitive conduct. The court recalled the limits to the exclusivity granted by patent right in the following cases: (a) unlawful acqui-

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[79] *Schor v Abbott Laboratories*, *supra* note 73, at 611.
[80] Coco, *supra* note 1, at 496.
[81] Coco, *supra* note 1, at 497.
[82] *In re Abbott Laboratories Norvir Antitrust Litigation, supra* note 74, at 807.
[83] Coco, *supra* note 1, at 497.
[84] *Re Abbott Laboratories Norvir Antitrust Litigation*, *supra* note 74, at 810.
[85] Coco, *supra* note 1, at 498.

sition through fraud; and (b) misuse, *i.e.* extension of the monopoly into separate markets.[86]

In contrast to this decision, the reference by the Court of Appeals for the Seventh Circuit in *Schor* referring to *Xerox* resulted in the opposite outcome. In *Xerox*, the Court of Appeals for the Federal Circuit granted a near-immunity from Section 2 of the Sherman Act to a patentee. Exceptions may only be carved out from the rule in such cases as, *inter alia*, fraud in the USPTO procedures.[87]

The Court of Appeals for the Federal Circuit declined to follow the *Kodak II* ruling since 'this logic requires an evaluation of the patentee's subjective motivation for refusing to sell or license its patented products for pretext,' which is not admissible, 'even though (the) refusal may have an anticompetitive effect, so long as that anticompetitive effect is not illegally extended beyond the statutory patent grant.'

The Supreme Court denied *certiorari* in *Schor* and therefore closed the door to any quest for policy options, beyond the individual case.[88]

5.3 Groups of Patent Misuse under US Law

There are several groups of patent misuse. Thus, for example, a patent holder may not be allowed to combine multiple patents to create a larger monopoly. Further, it may be monopolization if patent holders exchange patent licenses, pool them, package them for sale, purchase additional patents in an effort to procure a monopoly or an oligopoly, and seek to enforce them in bad faith, or extend the patent's term by requiring post-expiration royalties.[89]

Another kind of patent misuse may be leveraging. In *Eastman Kodak Co. v. Image Technical Services, Inc.*, the US Supreme Court pointed out that one who has obtained a monopoly through patents could be liable for using those patents to leverage his or her way into another market.[90]

5.4 In Particular: Illegally Obtained Patents

In particular, it is regarded as patent misuse if one uses a patent which he has obtained illegally. Such a patent holder is not protected from antitrust liability in contrast to the patent holder who has legally obtained a patent. In *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*,[91] the US Supreme Court ruled that possession of a patent obtained through fraud on the USPTO was no defense to a counterclaim charging the patent holder with monopolization.

In *Nobelpharma AB v. Implant Innovations, Inc.*,[92] the United Court of Appeals for the Federal Circuit pointed out in its initial decision that only affirmative mis-

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[86] Coco, *supra* note 1, at 498.
[87] *In re Independent Services Organizations Antitrust Litigation*, *supra* note 76, at 1326.
[88] Coco, *supra* note 1, at 499.
[89] Broder, A Guide to US Antitrust Law, 109 (2005).
[90] *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U. S. 451,479 *et seq.* (1992).
[91] *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172 (1965).
[92] *Nobelpharma AB v. Implant Innovations, Inc.*, 129 F.3d 1463, 1472 *et seq.* (Fed. Cir.).

representation to the USPTO could support a *Walker Process* claim. Proof of mere omissions, the Court held, would not be enough. After much criticism, it granted rehearing *en banc* and reversed itself.[93] It held that mere (but deliberate) acts of omission in USPTO filings could form the basis for a *Walker Process* claim.[94]

6. Comparative Analysis: Refusal to Deal under US Law

6.1 The *Trinko* Case

In the US, only in very rare cases is the refusal to cooperate with a rival prohibited by antitrust law. The Supreme Court in *Verizon Communications Inc. v. Trinko* stated: 'We have been very cautious in recognizing such [cases], because of the uncertain virtue of forced sharing and the difficulty of identifying and remedying anticompetitive conduct by a single firm.'[95]

Further, in *Trinko* the Supreme Court pointed out the dangers of antitrust liability in horizontal monopolization cases:

Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve the customers. Compelling such firms to share the source of their advantage creates some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities.[96] The judgment describes the benefits to society of a dominant firm's refusal to deal with a rival. The court chose not to endorse the essential facilities doctrine, signalling that the exclusion of rivals in itself should not create concern.[97] The *Trinko* case is even regarded as a clear denial of the essential facilities doctrine.[98]

6.2 The *Data General* Case

The same argument was stressed in the First Circuit's decision in *Data General Corp. v. Grumman Systems Support Corp*.[99] Data General as the antitrust defendant and copyright plaintiff refused to license its proprietary maintenance diagnostic software to third-party maintenance companies like the antitrust plaintiff. As a consequence, it was harder for those companies to compete with the defendant in the market for the maintenance of its computers. The decisive aspect for the court was that *Data General* had a copyright in the diagnostic software. Therefore, as the court stated, there is 'a curious conflict, namely, whether (and to what extent) the

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[93] *Nobelpharma AB v. Implant Innovations, Inc.*, *supra* note 92, at 1067 *et seq.*

[94] BRODER, *supra* note 89, at 111.

[95] *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko*, 540 U.S. 398 (2004), at 408.

[96] *Id*, at 407.

[97] ROSCH, I say Monopoly, You say Dominance: The Continuing Divide on the Treatment of Dominant Firms, is it the Economics?, at 9 (2007), available at <www.ftc.gov/speeches/rosch.shtm> (as of January 2008).

[98] MÜLLER/RODENHAUSEN, The Rise and Fall of the Essential Facilities Doctrine, 29 ECLR 310 (2008), at 328.

[99] *Data General Corp. v. Grumman Systems*, 36 F3d. 1147 (1st Cir. 1994).

antitrust laws, in the absence of any statutory exemption, must tolerate short-term harm to the competitive process when such harm is caused by the otherwise lawful exercise of an economically potential 'monopoly' in a copyrighted work.[100]

Further, the court pointed out:

> [I]n passing the Copyrights Act, the Congress itself made an empirical assumption that allowing copyright holders to collect license fees and exclude others from using their works creates a system of incentives that promotes consumer welfare in the long run by encouraging investment in the creation of desirable artistic and functional works of expression.[101]

However, this does not mean that under US antitrust law, a refusal to license is always justified, because 'the Copyright Act does not explicitly purport to limit the scope of the Sherman Act.' To 'harmonize the two (copyright law and antitrust law) as best we can' the Court stated that 'while exclusionary conduct can include a monopolist's unilateral refusal to license a copyright, an author's desire to exclude others from use of its copyrighted work is a presumptively valid business justification for any immediate harm to consumers.'[102]

The court found that neither copyright law nor antitrust law should be given primacy over the other.[103] It therefore rejected an irrebuttable presumption that a unilateral refusal to license a copyright would be legal. On the other hand, the court emphasized the importance of preserving the system of incentives established by copyright law.

7. The 'DG Competition Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Conduct'

Concerning the relationship of IP law and Article 82 EC, the 'DG Competition Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Conduct' from December 19, 2005,[104] which proposes abuse tests more firmly based in economics,[105] is of particular relevance. It states:

> There is no general obligation for the IPR holder to license the IPR, not even where the holder acquires a dominant position in the technology or product market. The very aim of the exclusive right is to prevent third parties from applying the IPR to produce and distribute products without the consent of the holder of the rights. This protection would be eroded if the holder of a successful IPR would be required to grant a license to competitors from the moment the IPR or the product incorporating the IPR becomes dominant in the market. Imposing on the holder of the rights the obligation to grant to third parties a license for the supply of products incorporating IPR, even in return for a

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[100] *Id.*, at 1152.
[101] *Id.*, at 1186.
[102] *Id.*, at 1187.
[103] SCHWEIZTER, *supra* note 57, at 5.
[104] Available at <http://ec.europa.eu/comm/competition/antitrust/art82/discpaper2005.pdf> (as of March 2008).
[105] KALLAUGHER/WEITBRECHT, *supra* note 21, at 319.

> reasonable royalty, would lead to the holder being deprived of the substance of the exclusive right'.[106]

As a consequence, the DG Competition Discussion Paper points out that the refusal to license an IPR, therefore, does not in itself constitute an abuse. Only under exceptional circumstances can the refusal to license an IPR be considered an abuse. For example, the refusal by a dominant company to license access to the IPR could be considered abusive when the conditions described above are all fulfilled and, furthermore, the refusal to grant a license prevents the development of the market for which the license is an indispensable input, to the detriment of consumers. Referring to *IMS*, the DG Competition Discussion Paper stresses that this may only be the case if the undertaking which requests the license does not intend to limit itself essentially to duplicating the goods or services already offered on this market by the owner of the IPR, but intends to produce new goods or services not offered by the owner of the rights and for which there is a potential consumer demand.

A major new development is the discussion of possible defenses. Besides objective justifications and the 'meeting competition defence', which are known from the case law, the DG Competition Discussion Paper deals with efficiencies.[107] This efficiency defense is new and has to be distinguished from the 'objective justifications' which have always been accepted by the ECJ.[108]

The approach is that an efficiency defense under Art. 82 EC should be applied basically in the same way as Article 81(3) EC. The underlying argument is presumably that Art. 81 and Art. 82 EC can often be applied to the same behavior and the treatment should therefore be consistent.[109] However, the efficiency defense in Article 81(3) EC is based on a different conception of rule and exception compared to Article 82 EC.[110]

Concerning IPRs, the Commission's Discussion Paper on Article 82 states that the IPR holder will fail the efficiency defense 'if the investment behind innovations leading to intellectual property rights may not have been particularly significant.'[111]

Further, the DG Competition Discussion Paper states that a 'refusal to license an IPR protected technology which is indispensable as a basis for follow-on innovation by competitors may be abusive even if the licence is not sought to directly incorporate the technology in clearly identifiable goods and services'.[112] The Commission, however, fails to explain the economic basis of the broad presumption in favor of access of competitors to IPRs for the purpose of follow-on innovation which the Commission postulates.[113]

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[106] *Supra* note 104, para. 238.
[107] *Supra* note 93, para. 84.
[108] SCHWEIZTER, *supra* note 57, at 19 *et seq.*
[109] FAULL/NIKPAY, *supra* note 56, at 418.
[110] SCHWEIZTER, *supra* note 57, at 22.
[111] *Supra* note 104, para. 236.
[112] *Supra* note 104, para. 240.
[113] SCHWEIZTER, *supra* note 57, at 21.

Although the position of the Commission is insofar questionable as it may be nearly impossible to determine whether an investment is significant or not in this sense, it is exaggerated to state that 'it has a chilling effect on innovation if undertakings are obliged to determine whether their proposed investments in innovation are significant enough to immunize them from antitrust proceedings.'[114]

8. Theory of Complimentarity

In its comments on the DG Competition Discussion Paper, the Max Planck Institute for Intellectual Property, Competition and Tax Law of March 31, 2006,[115] the Institute rightly stresses the complementary goals of IPRs and competition law.[116] Further, it emphasizes the importance of dynamic competition which is not pointed out that well in the Discussion Paper.[117]

Concerning the understanding of Article 82 EC, it recommends a cautious approach to transposing the patent/innovation paradigm to the copyright/creativity world. Particularly in view of the new efficiency approach, the Max Planck Institute rightly recommends distinguishing between patents and copyright by taking into account the specific dynamic aspect of the creative process that distinguishes copyright from patents.[118]

Further, the Max Planck Institute rightly points out that the Commission's approach concerning the 'indispensability' requirement has to be considered the most important element for any approach to the application of Article 82 EC to intellectual property, but that the Commission is not sufficiently specific about IP-related cases.[119]

The Max Planck Institute has a critical view on the position of the Commission in the Discussion Paper that whereas in *IMS Health*, the ECJ clarified that the 'prevention of the emergence of a new product' has to be considered a 'cumulative' requirement,[120] the Commission now seems to take to take the test as a mere 'example' of exceptional circumstances that justify a duty to license.[121]

According to the theory of complementarity, the IP system should not be immunized against competition, but, on the contrary, the relevant product market should ideally be a competitive market so as to produce maximum incentives for innovation.[122]

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[114] GLAZER, *supra* note 56, at 1212.
[115] DREXL/CONDE GALLEGO/ENCHELMAIER/LEISTNER/MACKENRODT, Comments of the Max Planck Institute for Intellectual Properity, Competition and Tax Law on the Directorate-General Competition Discussion Paper of December 2005 on the Application of Art. 82 of the EC Treaty to Exclusionary Practices, 37 IIC 558 (2006).
[116] *Id.*, para. 4 *et seq.*
[117] *Id.*, para. 7.
[118] *Id.*, para. 8.
[119] *Id.*, para. *15 et seq.*
[120] Case C-418/01, *supra* note 51, para. 38.
[121] *Supra* note 115, para. 17.
[122] *Supra* note 115, para 30.

9. Conclusion

It is 'common ground' that both jurisdictions in the EU and the US today regard competition policy and IP law as essentially complementary policies, providing different means to promote dynamic competition as a common goal.[123]

The older view according to which competition law and IP laws are in fundamental tension, has been overcome both in the EU and in the US. It was based upon the perception that IPRs are essentially rights granting a monopoly. Today it is generally accepted that the right to exclude inherent in IPRs cannot be equated with market power of any legally relevant kind: an IPR excludes competition by imitation, but competition by substitution remains permissible.[124]

The overview has shown that neither in Europe nor in the US there is no 'safe harbor' for the holders of IPRs as concerns the applicability of antitrust law. In Europe, the cases vary and concern different groups of abuse of a dominant position under Art. 82 EC. Whereas *AstraZeneca* is a very exceptional case that only concerns deceptive conduct, other cases which deal with a refusal to license or with bundling respectively tying show more, in general, that the particularities of IP law have to be taken into account when dealing with the applicability of Art. 82 EC.

The *AstraZeneca* decision of the Commission is a step further toward a convergent application of competition rules in the EU and the US.[125]

Further, the *AstraZeneca* decision is a signal to private parties like generic manufacturers, parallel traders and small and medium size innovative firms aimed at enhancing the private enforcement of competition law provisions. These private parties can rely not only on the traditional IPR protection, alleging the invalidity of an IPR, but also that competition law can offer them a remedy against illicit conduct by dominant undertakings.[126]

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[123] SCHWEIZTER, *supra* note 57, at 2; JONES/SUFRIN, *supra* note 5, at 777; SULLIVAN/GRIMES, The Law of Antitrust: An Integrated Handbook 841 (2nd ed. 2006).
[124] SCHWEIZTER, *supra* note 57, at 3.
[125] NEGRINOTTI, *supra* note 14, at 12.
[126] NEGRINOTTI, *supra* note 14, at 12.

Patents and Standards: The Antitrust Objection as a Defense in Patent Infringement Proceedings

Karolina Schöler

1. Introduction

The interface between intellectual property law and competition law has been in the focus for a decade. Following the *Magill*[1] and *IMS Health*[2] decisions by the ECJ concerning the application of the 'essential facilities' doctrine to intellectual property rights the question whether and under which circumstances the use and enforcement of intellectual property rights may constitute an abuse of a dominant position has been actively discussed not only by the academic world but also in the legal practice.[3] Over the last few years a new aspect has dominated this discussion – the conflict between patents and standards.[4]

1.1 The Applicability of Antitrust Rules to the Enforcement of IP Rights

There has always been a certain tension between patent protection and competition law.[5] Whilst it is the very objective of the patent system to create competitive advantages for an individual or a company by granting proprietary rights, competition law aims to avoid any such distortion of competition. The inherent conflict between the patent system and competition law becomes apparent where the enforcement of the proprietary right by a dominant company, whether by not licensing or by licensing this right to third parties on inappropriate terms, meets the requirements of an abuse of a dominant position. The conflict between competition law and intellectual property is innate to the legal system and can never be solved

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1 Case C-241/91 P and Case C-242/91 P, *RTE and ITP v. Commission* ('*Magill*'), [1995] ECR I-743.

2 Case C-418/01, *IMS Health*, [2004] ECR I-5039.

3 *See* STRAUS, Ende des Geschmacksmusterschutzes für Ersatzteile in Europa? Vorgeschlagene Änderungen der EU-Richtlinie: Das Mandat der Kommission und seine zweifelhafte Ausführung, 2005 Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil (GRUR Int.) 965, 969.

4 *See* IMMENGA, Neues aus den USA: Kartellrechtliche Fallstricke bei der Standardsetzung, 2007 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 302; FRÖHLICH, Standards und Patente – die ETSI IPR Policy, 2008 GRUR 205.

5 *See* DUMONT/HOLMES, The Scope of Intellectual Property Rights and Their Interface with Competition Law and Policy: Divergent Paths to The Same Goal? 11 Econ. Innov. New. Tech. 149, 151 (2002): 'There is necessarily a kind of tension between intellectual property which seeks to create rents through proprietary positions, and competition law, which seeks to maintain a competition that decreases rents and move prices towards marginal costs.'

entirely. Therefore, all efforts can only aim to reconcile the conflicting interests to the utmost extent possible.

To stigmatize the enforcement of a patent as an abuse of a dominant position questions the granted proprietary right itself since it challenges the patent owner's exclusive right to commercially exploit the patent. Therefore, according to a traditional opinion, competition law should not apply as long as the patent owner acts within the limits determined by the patent law.[6]

Whilst in the past courts tended to limit the application of competition law in the field of intellectual property law, this does, however, not mean that competition law is not applicable at all.[7] In this context it is important to see that both, competition law and intellectual property law, finally have the same objective: fostering a prospering economy and stimulating innovation. Today it is the prevailing opinion in the academic world that:

> [B]oth antitrust, by protecting competition, and intellectual property by rewarding innovation, create incentives to introduce new products.[8]

This opinion finds it expression in the US Antitrust Guidelines for the Licensing of Intellectual Property stating that:

> The intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare.[9]

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[6] ISAY, Patentgesetz, Sec. 11 German Patent Act, note 11, p. 417 (6th ed. 1932); ROGGE, in: BENKARD, Patentgesetz, Sec. 24 German Patent Act, note 19 (10th ed. 2006); FAHRENSCHON, Zwangslizenz nach § 25 des Entwurfs eines Gesetzes gegen Wettbewerbsbeschränkungen, 1955 GRUR 281, 283; GOTZEN, Gewerblicher Rechtsschutz und Gemeinsamer Markt, 1958 GRUR Int. 224, 225; MÖHRING, Der gewerbliche Rechtsschutz und die kommende Kartellgesetzgebung – Vorträge auf der ordentlichen Hauptversammlung der Deutschen Vereinigung für Gewerblichen Rechtsschutz in Stuttgart am 30. September 1955, 1955 GRUR 512, 516 *et seq.*; BEIER, Ausschließlichkeit, gesetzliche Lizenzen und Zwangslizenzen im Patent- und Musterrecht, 1998 GRUR 185, 195, *see* also BEIER, Missbrauch einer beherrschenden Stellung durch Ausübung gewerblicher Schutzrechte, in: WESTERMANN/ROSENER (eds); Festschrift für Karlheinz Quack zum 65. Geburtstag, 15, 31 *et seq.* (1991); MILLER, Magill: Time to Abondon the 'Specific Subject-matter' Concept, 16 EIPR 415, 421 (1994): 'Abuses of a dominant position can never be caused by the exercise of an intellectual property right'.

[7] *See* POHL, Die Voraussetzungen der patentrechtlichen Zwangslizenz, 282 (1998), who highlights that intellectual property rights are not 'immune' against the provisions of competition law'; *see* also BECHTOLDSHEIM/BRUDER, Die Essential Facilites Doktrin und § 19 (4) Nr. 4 GWB, 2002 Wettbewerb in Recht und Praxis (WRP) 55, 61.

[8] PITOFSKY, Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property, 68 Antitrust L.J 913, 917 (2001); *see* also STRAUS, Produktpatente auf DNA-Sequenzen – Eine aktuelle Herausforderung des Patentrechts, 2001 GRUR 1016; LOHER, Die IMS-Health-Entscheidung der Europäischen Kommision: Copyright K.O.?, 2002 GRUR Int. 7.

[9] Antitrust Guidelines for the Licensing of Intellectual Property, Issued by the U.S.Department of Justice and the Federal Trade Commission, April 6, 1995, at 1.0; *see* also KRIEGER, 'Innovation' im Sapannungsfeld zwischen Patentschutz und Freiheit des Wettbewerbs, 1979 GRUR 350, 351.

Article 82 EC prohibits the abuse of a market dominant position irrelevant of how this position was obtained, including as a result of the grant of an intellectual property right[10].

In light of the growing number of granted patents and the increasingly broad definition of a patentable invention competition law becomes more and more important for an effective regulatory system. Patent protection has become available for new branches of industry and the high number of patents granted particularly in the field of biotechnology[11] has already led to so called 'patent thickets', *i.e.* overlapping patents which can block technical progress and further developments.

Negative effects of patents, namely the issue of patents blocking further development was particularly discussed by *Heller* and *Eisenberg* under the heading 'Theory of the Anticommons'.[12] The 'Theory of the Anticommons' figures as antithesis to the idea of the 'tragedy of the commons' developed by *Hardin* to describe the problem of the unlimited exploitation of resources which are common property.[13] According to *Heller*, a high number of overlapping property rights which entitle their owners to exclude third parties from the use of the protected inventions result in important resources remaining entirely unused:

> In an anticommons, by my definition, multiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use. Where there are too many owners holding rights of exclusion, the resource is prone to under use – a tragedy of the Anticommons.[14]

Heller's assumption is based on the following: A high number of intellectual property rights in a certain technical field which are held by various owners makes it necessary to acquire licenses for all or at least a significant number of these rights to compete in the relevant technical field. The combination of various licenses leads to a so-called royalty stacking which may have a discouraging effect on potential

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[10] *See* DUMONT/HOLMES, *supra* note 1: 'In an ideal world it would be possible to separate antitrust and IPR, but in reality this is difficult. Only if we believe IPRs are some form of moral right whose exercise can never be an abuse there is no problem'; *see* also Antitrust Guidelines for the Licensing of Intellectual Property, *supra* note 8, at 2.1:

> The Agencies apply the same general antitrust principles to conduct involving intellectual property that they apply to conduct involving any other form of tangible or intangible property. That is not to say that intellectual property is in all respects the same as any other form of property. Intellectual property has important characteristics, such as ease of misappropriation, that distinguish it from many other forms of property. These characteristics can be taken into account by standard antitrust analysis, however, and do not require the application of fundamentally different principles.

[11] See STRAUS, *supra* note 8; ID., Biotechnologische Erfindungen – ihr Schutz und seine Grenzen, 1992 GRUR, 252.

[12] HELLER, The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, 111 Harvard Law Rev. 621, 623 *et seq*. (1998); HELLER /EISENBERG, Can Patents Denter Innovation? The Anticommons in Biomedical Research, 280 Science 698 (1998).

[13] HARDIN, Tragedy of the Commons, 162 Science 1243 *et seq*. (1968).

[14] HELLER, *supra* note 7; see also SHAPIRO, Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting, available at <http://faculty.haas.berkeley.edu/shapiro/thicket.pdf> (as of May 2008).

inventors and, therefore, can hinder development and technical progress.[15] Moreover, the licensee who has already licensed a significant number of relevant patents could be forced to pay excessive license fees in order to acquire an additional license that is necessary to actually make use of the licenses acquired before.[16] In such a situation the licensee depends on the acquisition of the last expensive license if it does not want lose her investment in the licenses acquired before.

In light of those potential negative and anti-competitive effects of patents it becomes obvious that the enforcement of 'key patents' has to be subject to antitrust rules and to be monitored by the competent competition agencies.

1.2 Standards

Under which circumstances the enforcement of a patent constitutes an abuse of a dominant position on a market has particularly been discussed in the course of the current debate on 'patents and standards.'

Technical standards have become more and more widespread in various fields of high technology. The growing importance of standards, particularly in the information and communication technology, is the consequence of the increasing need of interoperable networks, systems and handhelds. Namely in the field of telecommunication technology customers expect their handhelds to be compatible with different networks and to exchange data within various systems.

However, insofar as IP rights, namely patents, are involved conflicts are bound to arise: Whilst it is in the very interest of the standardization process to make the standard widely accepted and open to the public, the patent owner aims at the exclusive and limited exploitation of his patent.[17]

Thus, as soon as a standard covers a technology protected by one or by various patents in such a way that the application of the technical standard necessarily requires the use of the technical invention which is protected by a patent – such patent being called an 'essential patent'[18] – the conflict of interests is obvious.

Companies manufacturing products that have to comply with the standard feel threatened by patents protecting certain aspects of the standardized technology – and this not only due to exorbitant royalty obligations to be expected. An even

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[15] Regarding the patent thicket in the field of biotechnology *see* MEEK, 'The Race to Buy Life', THE GUARDIAN, November 15, 2000: 'But the risk to society is that future medical researchers – private and public – will have to hack their way through forests of patents, paying out hefty licence fees to a host of gene squatters, before the miracle drugs of the genetics revolution reach the market'.

[16] So called 'hold out' problem; HELLER, The boundaries of Private Property, 108 Yale L.J. 1163, 1174 *et seq*. (1999); *see* also LAYNE-FARRAR ET AL., Pricing Patents for Licensing in Standard Setting Organisations: Making Sense of FRAND Commitments, 2006, available at http://ssrn.com/abstract=937930.

[17] *See* FRÖHLICH, *supra* note 3, at 206.

[18] According to the European Institute for Telecommunication Standards (ETSI) 'Essential means that it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available (…) to make (…), use or operate [equipment] or [methods] which comply with a [standard] without infringing that IPR'.

more important issue is that companies manufacturing products according to a standard could be forced to take a license notwithstanding the patent's invalidity or the fact that the patent in question is actually not 'essential' for the technology in question.

In other words, the standard could be used by patent owners to protect and enforce invalid or non-essential patents.[19] This risk is particularly high where the owner of the patent in question has been involved in the standard setting process. In the absence of a regulation, a company involved in the standard setting process may try to influence the process so as to create an overlap between the standard and its patents.

2. The ETSI IPR Policy

The three official European Standard-Setting Organizations,[20] The European Committee for Standardisation (CEN), the European Committee for Electrical Engineering Standardisation (CENELEC) and the European Institute for Telecommunication Standards (ETSI) try to meet and – as far as possible – solve conflicts between intellectual property rights and standards by setting policies providing for self-regulation.[21] Probably the best example of such a policy is the well-known ETSI IPR Policy on which this article will focus.[22]

ETSI is one of the most important international technical Associations in the field of information and communication technology. Today ETSI has approximately 700 members from more than 51 different countries. A number of the standards set by ETSI are well-known and worldwide acknowledged like the mobile phone standard GSM.[23]

Put shortly, the ETSI IPR Policy is characterized by the following: In the field of information and communication technology an unprotected alternative technology rarely exists. Therefore it is particularly important that the essential patents

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[19] This issue has also been raised in relation to patent pools, *see* CARLSON, Patent Pools and the Antitrust Dilemma, 16 Yale J. Reg. 359, 386 *et seq*. (1999).

[20] *See* Regulation 98/34/EG, [1998] OJ No. L 204, dated July 21, 1998. It can be distinguished between so called "Dejure-Standards" established by official Standard-Setting Organizations and "Defacto-Standards" based on the practice of a or of sveral participants in the market.

[21] GOOD, How Far Should IP Rights Have to Give Way to Standardization: The Policy Positions of the ETSI and the EC, 14 EIPR 295 (1992); PRINS/SCHIESSL; The New European Telecommunications Standard Institute Policy: Conflicts between Standardization and IPRs, 15 EIPR 263 (1993).

[22] ETSI IPR Policy, available at <http://www.etsi.org/WebSite/document/Legal/ETSI_IPR-Policy.pdf> (as of May 2008); for the history of the ETSI IPR Policy *see* IVERSEN, Case Study: ETSI, in: European Commission Final Report on Interaction between Standardisation and Intellectual Property Rights (Technical Report EUR 1 074 EN), p. 197.

[23] Global System for Mobile Communications. The mobile phone standard of the second generation (2G) is currently used by approximately 2.3 billion people. Other ETSI standards are UMTS (Universal Mobile Telecommunications System), DECT (Digital Enhanced Cordless Telecommunications), DVB (Digital Video Broadcasting) and TETRA (Terrestrial Trunked Radio).

are identified and disclosed as soon as possible. Therefore at each meeting the members are asked to disclose their relevant patents by a so-called 'Call for IPRs.'[24] During the standard setting process each patent owner is obliged to disclose relevant patents as soon as possible. The obligation to disclose is thereby not limited to granted patents but rather covers patent applications as well.[25]

As regards the enforcement of the obligation to disclose essential patents ETSI's rights are limited. In case the late disclosure of patents hinders the implementation of a standard ETSI might have a claim for damages against the patent owner.[26] Apart from this, compulsory measures to enforce the obligations under the ETSI IPR policy do not exist. ETSI rather depends on the patent owner's responsibility.

To ensure the unhindered use of the standard each owner of an essential patent is asked by ETSI for an irrevocable declaration, the so called 'ETSI IPR Policy and Undertaking', by which the patent owner declares to license his patent on fair, reasonable and non-discriminatory terms (so-called FRAND terms).[27]

In case the patent owner agrees to sign the undertaking there is no reason for ETSI not to integrate the respective patent into the standard. The subsequent negotiations on the terms and conditions of the license agreement take place between the patent owner and the licensee without any participation of ETSI.[28]

On the other hand, if the patent owner refuses to sign the undertaking, the further proceeding depends on the timing. In the – for the standard setting organization more preferable – case that the standard setting process is still ongoing at that time one will try and find an alternative technology to integrate into the standard. However, if the patent owner denies to sign the declaration after the standard has been published the situation is far more difficult. In a worst case scenario the patent owner is not member of ETSI (and, thus, cannot be obliged to sign the undertaking) and an alternative technology is not available. This could, as a final consequence, lead to the withdrawal of the standard.

3. The Application of the Antitrust Provisions

In the following the conflict of patents and standards shall be analyzed in the light of the relevant provisions of the antitrust rules. For this purpose it has to be distinguished between the following different issues:

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[24] The wording of such a 'Call for IPRs' is as follows: 'The attention of the members of this Technical Body is drawn to the fact that ETSI Members shall use reasonable endeavours under Clause 4.1 of the ETSI IPR Policy, Annex 6 of the Rules of the Procedure, to inform ETSI of Essential IPRs in a timely fashion. This Section covers the obligation to notify its own IPRs but also other companies' IPRs.'

[25] Clause 15.7 ETSI IPR Policy.

[26] FRÖHLICH, *supra* note 4, at p. 209.

[27] ETSI Guide on IPRs, January 25, 2007, available at <http://www.etsi.org/WebSite/document/Legal/ETSI_Guide_on_IPRs.pdf> (as of May 2008), p. 9: 'Members are encouraged to make general IPR undertakings/declarations that they will make licenses available for all their IPRs under FRAND terms and conditions related to a specific standardization area and then, as soon as feasible, provide (or refine) detailed disclosures.'

[28] Section 4.1 ETSI Guide on IPRs, *supra* note 27.

(a) whether and under which circumstances a company abuses its dominant position on a market by keeping its patents or patent applications secret during the standard setting process or by trying to take influence on the standard in such a way that its patents are made part of it (such a behavior being called 'a patent ambush' or a 'patent hold-up');
(b) how to avoid the integration of invalid or non-essential patents into the standard; and
(c) finally the patent owner's obligation to license his patents which are covered by the standard to third parties on FRAND terms.

3.1 Patent Ambush

A patent owner not disclosing his patent during the standard setting process and thereby provoking the establishment of a standard covering this patent is – at least in the US – likely to get into the focus of the relevant antitrust authorities. The building of such a 'patent ambush' can – under certain circumstances – be deemed as anticompetitive. The US Federal Trade Commission (FTC) has dealt with this issue in two remarkable proceedings:

3.1.1 Dell

In the 1990s the FTC started proceedings against the US computer manufacturer Dell. Dell was the owner of patents protecting certain aspects of a technology related to a computer bus. During its participation in the standard setting process of the Video Electronics Standards Association (VESA), even on inquiry, Dell did not disclose its patents that were highly relevant for the standard to be set. After the standard had been published and applied by the industry, Dell sought to enforce its patents that were adopted by the standard-setting organization. Upon intervention of the FTC, Dell agreed to abstain from enforcing its patent and the case was settled.[29]

3.1.2 Rambus

Another case dealing with a 'patent ambush' is the often discussed recent 'Rambus' decision of the Federal Trade Commission (FTC).[30]

The background of this decision was the development of a standard for Synchronous Dynamic Random Access Memory (SDRAM) by the Joint Electron Device Engineering Council (JEDEC). The chip manufacturer Rambus, Inc., who concen-

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[29] Dell Computer Corp., 121 F.T.C. 616 (1996); see also Federal Trade Commission, Press Release, November 2 1995, available at <http://www.ftc.gov/opa/1995/11/dell.shtm> (as of May 2008).

[30] *In the Matter of Rambus, Inc.*, FTC Opinion of July 31, 2006, Docket No. 9302, available at <http://www.ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf> (as of May 2008) and <http://www.ftc.gov/os/adjpro/d9302/060802rambusorder.pdf> (as of May 2008); *see* also IMMENGA, *supra* note 4. See also DREXL, Deceptive Conduct in the Patent World – A Case of US Antitrust and European Competition Law?, in this volume; another in some respects comparable case is the matter Qualcomm Incorporated, *see* press release of the European Commission dated October 1, 2007, MEMO/07/389, available at http://europa.eu/rapid.

trated on the development of new storage technologies, joined the JEDEC at that time.

Members of the JEDEC are obliged to exclude patented technologies from the standard as far as possible or, as the case may be, to assure that patented technologies are licensed on FRAND terms.

Rambus did not restrain from filing new applications for patents on standard-relevant aspects of storage technologies during the course of the standard setting process. At the time Rambus attended the meetings the company developed several technologies, was owner of a patent and had filed a number of patent applications which later on became part of the SDRAM standard. When it was obvious how the standard finally would look, Rambus left the JEDEC and changed its patent applications according to the information on the future standard the company had received during the meetings.

Three years after the standard had been published and companies had started manufacturing products accordingly Rambus started patent infringement proceedings against various manufacturers of SDRAM related products in Europe (amongst others in Germany) and in the US.

The FTC found that Rambus had neglected its obligations under the statute of the JEDEC and abused its dominant position on the Computer Memory Technologies Market by joining the meetings of the JEDEC until 1996 – which was about the time the standard was set – without mentioning its relevant patents and patent applications.

The Commission held that Rambus's acts of deception constituted an 'exclusionary conduct' under Section 2 of the Sherman Act[31] and contributed significantly to Rambus's acquisition of monopoly power:

> Rambus engaged in exclusionary conduct that significantly contributed to its acquisition of monopoly power in four related markets. By hiding the potential that Rambus would be able to impose royalty obligations of its own choosing, and by silently using JEDEC to assemble a patent portfolio to cover the SDRAM and DDR SDRAM standards, Rambus's conduct significantly contributed to JEDEC's choice of Rambus's technologies for incorporation in the JEDEC DRAM standards and to JEDEC's failure to secure assurances regarding future royalty rates – which, in turn, significantly contributed to Rambus's acquisition of monopoly power.[32]

In addition to barring Rambus from making misrepresentations or omissions to standard-setting organizations, the order of the FTC required Rambus to license its SDRAM and DDR SDRAM technology and set maximum allowable royalty rates Rambus could collect.

The DC Circuit Court of Appeals did, however, not uphold the FTC's decision. Since the Commission expressly left open the likelihood that JEDEC would have

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[31] Section 2 Sherman Act: 'Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part o the trade or commerce among the several states, or with foreign nations, shall be deemed guilty for felony'.

[32] *See* FTC Opinion, *supra* note 30, at p. 118; *see* also LOEST/BARTLIK, Standards und Europäisches Wettbewerbsrecht, 2008 ZWeR 41.

standardized the technologies protected by Rambus's patents even if Rambus had disclosed its intellectual property the Court found that Rambus's alleged deception could not be said to have had a negative effect on competition.[33] According to the Court the Commission failed to demonstrate that Rambus's unlawfully monopolized the relevant markets. The Court found that it wasn't sufficient to prove that Rambus lied or harmed competitors, the FTC rather had to prove that it harmed consumers in order to fall under anti-trust law. The Court's decision, thus, raised the bar on proof required to act against such behavior.

Whether Rambus's conduct met the requirements of an abuse of a dominate position under German or European antitrust law is even more doubtful due to the narrow understanding of an abuse of a dominant market position under article 82 EC.[34]

3.2 Over-declaration

Another issue discussed in the context of patents and standards is the disclosure of non-essential patents in the course of the standard setting process, the so-called 'over-declaration'. A patent owner might seek to integrate its patent into the standard notwithstanding the fact that the technology protected by the patent actually is not required to manufacture products which are compatible with the standard.

3.2.1 ETSI GSM 03.19

The disclosure of non-essential patents was – amongst other issues – subject of the decision 'ETSI GSM'.[35] Based on Article 81 EC in this case the European Commission tried to take influence on the standard-setting process itself. The Commission found that the disclosure of non-essential patents in relation to a standard had led to a distortion of competition. The proceeding was settled when ETSI changed the wording of Clause 4 of the ETSI IPR Policy in order to provide a more effective protection against a patent ambush scenario.[36]

3.2.2 Nokia

In the remarkable Nokia proceedings the English High Court had to decide on the admissibility of a declaration for non-essentiality (so-called DONE) raised as an objection in a patent infringement proceeding. Such a declaration of non-essentiality is an action for a declaratory judgment started by the defendant in a patent infringement proceeding. With such a declaratory relief the defendant requires a

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[33] *Rambus, Inc. v. FTC*, 2008 U.S. App. LEXIS 8622 (D.C. Cir. 2008).

[34] Whilst Sec. 2 Sherman Act applies on the creation and defense of a dominant position on a market, Art. 82 EC and Sec. 19 of the German Act against Restraints of Competition only applies if the company in question has already obtained a dominant position on the relevant market and is abusing this dominant position; see also DREXL, *supra* note 30, at 2.3.1.

[35] European Commission, ex officio case COMP/C-3/37926; *see* European Commission, (IP/05/1565), Press release December 12, 2005, available at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/1565&form> (as of May 2008).

[36] *See* Section 4.5 of the ETSI Guide on IPRs, *supra* note 27.

judgement stating that the patents in dispute are not essential to the standard in question.

The decision *Nokia Corporation v. Interdigital Technology Corporation*[37] related to the GSM standards for digital cellular mobile phones and infrastructure. Lord Justice Pumfrey was asked to decide whether four of InterDigital's patents relating to aspects of the transmission of signals were essential to the 3G telecoms standard in Europe. This was the first English judgement on essentiality of patents to a technical standard.

The GSM standards are international standards with which each GSM mobile phone necessarily must comply. The patents in suit had equivalents in numerous countries, all of which had been notified by InterDigital to ETSI as essential to the GSM standard. Nokia, however, refused to pay royalties for the use of the patents based – amongst other things – on the argument that InterDigital's patents were inessential to the GSM standard.[38]

The English Court of Appeal had already decided at an earlier stage in the proceeding that there is jurisdiction for the Court to hear an application for this kind of negative declaration.

Lord Justice Pumfrey upheld this decision and found that the issue was clearly enough defined to be subject to the Court's inherent discretion. On balance, the Court decided to rather assess the commercial value of the patents in dispute – *i.e.* to assess whether the patents are essential for the manufacture of products which comply with the standard – than to concentrate on the question of infringement or non-infringement of these patents.

Lord Justice Pumfrey explained that the Court of Appeal had agreed that courts have the power to do so:

> From the Court of Appeal's judgement I think it is established that there is a jurisdiction to entertain an action like the present where negative declarations as to the essentiality of a patented invention to a standard are sought is established if the Court has personal jurisdiction over the defendant and if sufficient facts are alleged that it is possible that the Court might grant declaratory relief. Whether declaratory relief will be granted is a matter of a discretion to be exercised on all the relevant available material in every case.[39]

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[37] *Nokia Corporation v InterDigital Technology Corporation*, [2007] EWHC 3077 (pat), December 21, 2007.

[38] Nokia sought for a 'Declaration that the importation, manufacture, sale, supply, offer for sale or supply keeping or use of (i) mobile telephones and (ii) system infrastructure equipment, or either of them, compliant with the FDD mode of operation as set out in 3GPP TS 21.101 Release 5 or any revisions to this or any later Releases as at the date hereof, without the licence of the Defendant, does not require infringement of [the listed patents] or any of them, such that the Patents and each of them are not Essential IPR for the FDD mode of operation of 3GPP TS 21.101 Release 5 or do not remain or have not become Essential IPR for any revisions to this or any later Releases as the date hereof', *Nokia Corporation v. Interdigital Technology Corporation*, *supra* note 37, at no. 2.

[39] *Nokia Corporation v. Interdigital Technology Corporation*, *supra* note 37, at note 4.

Lord Justice Pumfrey ruled that three of the patents and one claim of the fourth patent[40] were not essential.

The case is certain to generate further interest in the court's ability to determine issues of essentiality.[41] It seems to be only a question of time when this objection will be raised for the first time in a patent infringement proceeding in Germany.

3.3 FRAND terms

It is well acknowledged that an owner of a patent which is part of an industry standard is obliged to license this patent on FRAND terms. According to recent decisions this might also be true for de facto standards.[42] Whether and under which circumstances the licensing terms are not fair, not reasonable or discriminatory and, thus, constitute an infringement of competition law has recently been subject of several court decisions in different countries.

3.3.1 Standard-Spundfass

In its decision 'Standard-Spundfass' the German Federal Supreme Court (*Bundesgerichtshof*) found that a patent owner could be hindered to enforce its patent against a third party in case he failed to license it on FRAND terms.[43]

The claimant in this case was the owner of the European Patent no. 515390 relating to the manufacture of industrial barrels. Based on this patent the claimant obtained a preliminary injunction against a competitive barrel manufacturer. The defendant did not contest to infringe the claimant's patent but rather started an action for a declaratory judgement alleging that under the applicable antitrust rules the claimant was obliged to license its patent. The defendant referred to the guidelines and regulations set up by the Association of the Chemical Industry (Verband der Chemischen Industrie e.V. (VCI)) regarding volume, weight and size of industrial barrels and stated that it was impossible to manufacture a barrel in compliance with the VCI guidelines without using the claimant's patent.

The Court found it admissible to raise an objection based on an alleged non-compliance with Sections 19 and 20(1) of the German Act against Restraints of Competition[44] in a patent infringement proceeding. Given the fact that the VCI guidelines had become the standard for industrial barrels, in the court's opinion it

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[40] InterDigital's '610 patent.

[41] An objection of non-essentiality was also raised by the defendant in the case *Sisvel et al. v. SanDisk*, [2007] EWHC 332. The objection was rejected by the court since Sisvel had expressly offered a license which 'would only relate to the patents asserted by Sisvel/Audio MPEG to be essential.' In light of this offer the judge found it 'simply impossible to allege (…) that Sisvel insists upon including non-essential patents within the scope of the licence.'

[42] German Federal Supreme Court (Bundesgerichtshof, BGH), July 13, 2004, KZR 40/02, 2004 GRUR 966 – *Standard-Spundfass* = 36 IIC 742 (2005) (English translation); Karlsruhe Court of Appeals (Oberlandesgericht, OLG), December 13, 2006, 6 U 174/02, 2007 Gewerblicher Rechtsschutz und Urheberrecht Rechtsprechungsreport (GRUR-RR) 177 – *Orange Book-Standard*.

[43] German Federal Supreme Court (Bundesgerichtshof, BGH), *supra* note 42.

[44] Gesetz gegen Wettbewerbsbeschränkungen (GWB).

was hardly possible to sell barrels which did not comply with the VCI guidelines and specifications. Accordingly, the Court deemed it possible that the claimant abused its dominant position on the market by not licensing its patent on FRAND terms.

The Federal Supreme Court highlighted the patent owner's discretion in respect to the terms and conditions under which it was willing to license its patent to third parties. However, according to the Court, this discretion could be limited in cases where a dominant market position was not merely obtained due to the basic invention but also due to a standard in place based on the respective patent and, thus, making the use of the patent indispensable. Thus, if the dominant position does not only result from the invention itself, but also from further extrinsic aspects like the standardization, the patent owner's discretion is limited. According to the Court, the patent owner abused its dominant position on the market by unreasonably limiting the access to such an essential technology.

3.3.2 Orange Book-Standard

The approach taken by the German Federal Supreme Court in the decision 'Standard-Spundfass' was confirmed and applied in more detail by the Court of Appeal of Karlsruhe in its decision 'Orange Book-Standard'.[45]

First of all, the Court of Appeal found that in cases where specifications or guidelines determine the standardized form and design of a product the grant of licenses in respect of this design had to be seen as an own upstream market in terms of antitrust law. The Court confirmed that it was an admissible defense in a patent infringement proceeding to raise an objection based on the patent owner's obligation to license the patent on FRAND terms under Sections 19, 20 German Act against Restraints of Competition and Article 82 EC.

The Court then discussed whether such an objection could be raised only in relation to the patent owner's claim for damages or also in relation to an injunction. In its *Standard-Spundfass* decision the Federal Supreme Court had not discussed this issue. The Court of Appeal did not make a definitive decision in this respect either, but indicated to be inclined to hold an antitrust objection admissible not only in respect of claims for damages but also in respect of an injunction.

According to the Court, the defendant had, however, not submitted evidence for an abuse of the patent owner's dominant position on the relevant market. The defendant could not prove that the patent owner had granted licenses to third parties on more favorable conditions than the conditions offered to the defendant.

Moreover, the Court stated that even in the case that the licensing terms were unreasonable or discriminatory the defendant was not entitled to finally determine the licensing conditions. Rather the patent owner would be free to reject an offer on conditions less favourable than the most favourable *and* not anticompetitive conditions. If the conditions offered by the defendant could be modified for the benefit of

[45] Karlsruhe Court of Appeals (Oberlandesgericht, OLG), *supra* note 42, the case is currently pending with the Federal Supreme Court (file number X ZR 148/06) after the defendant filed an appeal against denial of leave to appeal (Nichtzulassungsbeschwerde).

the patent owner without being anticompetitive, the objection raised by the defendant would be dismissed.[46]

It is not hard to see that these requirements cause almost insolvable difficulties for the defendant in a patent infringement proceeding.

3.3.3 Videosignal-Codierung I

These difficulties were subject to a number of parallel patent infringement actions decided by the District Court (*Landgericht*) of Düsseldorf in 2006.[47]

The claimants of these proceedings were various owners of patents relating to the encoding and decoding of video signals according to the MPEG-2 standard. All claimants were members of the MPEG LA Patent Pool which acts as a licensing agency for its members. The defendant in these proceedings was a company manufacturing and distributing optical data carrier, namely DVDs.

According to the defendant it was possible to manufacture DVDs compatible with the MPEG-2 standard without using all or even the majority of the patents covered by the standard. From the possibility to manufacture MPEG-2 compatible DVDs without using all patents being part of the MPEG-2 standard the defendant concluded that the standard covered non-essential patents and therefore infringed the guidelines regulating the process of standard setting.

The District Court found the antitrust objection raised by the defendant admissible both in respect to the injunction claim and in respect to the claim for damages. The admissibility of the objection was based on the good faith provision of Section 242 German Civil Law.[48]

On balance, however, the District Court of Düsseldorf rejected the objection. The Court found that in light of the fact that the DVDs manufactured by the defendant were compatible with the MPEG-2 standard which was the prevalent standard for the encoding and decoding of DVDs it had to be assumed that the relevant patents were infringed by the defendant. In other words, the court assumed that all patents covered by the MPEG-2 standard would be infringed by the manufacture of standard compatible products. The Court reversed the burden of proof in this respect to the disadvantage of the defendant.

With respect to the claimant's obligation to license its patent on FRAND conditions the Court dismissed the objection raised by the defendant. In considering the objection the District Court of Düsseldorf first of all highlighted the need to distinguish between two different situations: Cases in which the patent owner refused to grant *any* license to use its patent and cases in which the patent owner was willing to license, but not on FRAND terms.

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[46] *Id.*

[47] Düsseldorf District Court (Landgericht, LG), 2007, November 30, 2006, 4b O 508/05, 7 Entscheidungen der Instanzgerichte zum Recht des geistigen Eigentums (InstGE) 70 – *Videosignal-Codierung I.*

[48] The court applied the so called '*dolo agit*' rule whereby '*dolo agit qui petit quod statim redditurus est*'.

Whilst the first case would have to be decided along the lines of the well-known discussed 'essential facility' decisions of the ECJ, namely the *IMS Health* decision,[49] this was not true for the second case relevant here and rather comparable with the aforementioned *Orange Book-Standard*[50] and *Standard-Spundfass* decisions.[51]

The Court highlighted that by licensing the patent to different licensees on different, *i.e.* more or less favorable, conditions the patent owner would behave in a discriminatory way and even more so by enforcing its rights selectively against certain infringers while leaving them unenforced in respect to other infringers. Moreover, according to the Court the request for unreasonably high royalties could also constitute an abuse of a dominant position.

However, the Court found that the defendant had not proven any anticompetitive conduct by the claimant. In the opinion of the Court the mere fact that the royalties to be paid to the claimant had not decreased proportionally to the deterioration of the market prices for DVDs was not an evidence for an abuse of the dominant position in the market.

In addition to the allegation of an abuse of its dominant position and a discriminatory conduct the defendant argued that the claimant had built a 'patent ambush.' The defendant stated that the claimant had taken influence on the standard during the standard setting process to make his patent part of it. Moreover, according to the defendant a significant number of the patents covered by the standard were either not essential or even invalid.

The Court found, however, that the defendant had not submitted the required evidence and therefore dismissed the patent ambush objection.

This rejection has to be seen in view of the reversion of the burden of proof in respect of the infringement of standard related patents. The combination of a presumption for an infringement of all standard related patents by the manufacture of standard compatible products on the one hand and the obligation to supply evidence for the non-essentiality of a patent covered by the standard on the other hand makes it very difficult to successfully raise an antitrust objection in a patent infringement proceeding.

3.3.4 GSM Standard ('Zeitlagenmultiplexverfahren')

In its decision *Zeitlagenmultiplexverfahren* the District Court (*Landgericht*) of Düsseldorf for the first time allowed an antitrust objection in patent infringement proceedings.[52]

The Court found that under Section 6.1 of the ETSI IPR Policy the claimant was obliged to license the relevant patent which related to the GSM standard on FRAND

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[49] *Supra* note 2.
[50] *Supra* note 42.
[51] *Supra* note 42.
[52] Düsseldorf District Court (Landgericht, LG), February 13, 2007, 4a O 124/05; published at BeckRS 2008 007732.

terms. The Court highlighted that the use of the GSM standard was indispensable for a company acting in the mobile phone technology.

In this context the Court refered to Section 1.4. of the ETSI Guide on Intellectual Property Rights (IPRs) which states that the obligation to license on FRAND terms not only applied for members of ETSI but also for third parties:

> The ETSI IPR Policy defines rights and obligations for ETSI as an Institute, for its Members and for the Secretariat. Non-Members of ETSI also have certain rights under the Policy but do not have legal obligations.
>
> Third parties have certain rights under the ETSI IPR Policy either as owners of Essential IPRs or as users of ETSI standards or documentation: (…) To be granted licences on fair, reasonable and non-discriminatory terms and conditions in respect of a Standard at least to manufacture, sell, lease, repair, use and operate (clause 6.1).[53]

The Court deemed it unreasonable that the license granted to the defendant did not provide for a limitation of the royalties to be paid in total for the use of all essential patents integrated in the standard. Since the claimant only held 3% off all essential patents the Court saw a certain risk of an unreasonable accumulation of costs should all owners of all essential patents ask for a royalty comparable to the royalty requested by the claimant.

Although at the time of the decision no other owner of essential patents that were part of the standard had requested the defendant to ask for a license the Court deemed it necessary to limit the royalty to be paid to the claimant in view of potential royalties to be paid for the use of other essential patents. The court suggested estimation of the royalties to be paid to the claimant proportionate to the number of patents owned by the claimant compared to the total number of essential patents. Alternatively the sum to be paid in total could be limited in such a way that in case the royalties to be paid in total accrued up to a certain amount the royalties to be paid to the claimant should reduce proportionately to the number of patents owned by the claimant compared to the total number of essential patents.[54]

Since the license offered to the defendant by the claimant did not provide for such a limitation, the Court deemed this offer unreasonable and, thus, accepted the defendant's objection.

The approach taken by the court causes, however, a number of practical difficulties. Particularly, a limitation of royalties as suggested by the court would require assessing all essential patents to be of the same value. It seems questionable whether such an assumption will always be justified. Moreover, according to which criteria should it be decided which patents are to be taken into account for such an assess-

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[53] Section 1.4 of the ETSI Guide on Intellectual Property Rights (IPRs), November 23, 2005 (Exhibit B & B 20). In clause 6.1 of the ETSI IPR Policy it is said: 'When an Essential IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Directo-General of ETSI shall immediately request the owner to give within three months an undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory terms and conditions under such IPR to at least following extent: (…)'.

[54] Düsseldorf District Court, *supra* note 52.

ment? As mentioned before, the mere fact that a certain patent was disclosed as essential to the standard does not necessarily mean that this patent actually is valid and that its use is indispensable.

4. Possibilities of Defense Under German Law

In the light of the above – what are the possible defenses in a patent infringement process regarding patents integrated in a standard under German law?

There are various ways in which the defendant could defend itself in patent infringement proceedings.

4.1 Defense Based on a Breach of Contractual Obligations

To prevent the patent owner from enforcing its patent the defendant could base its defense on the patent owner's breach of contractual obligations to disclose essential IPRs under the relevant standard setting agreements. The defendant could argue that the patent owner had been in breach of contract by failing to disclose its IPRs during the standard setting process. In raising such argument, the defendant would, however, need to demonstrate that the IPR policies of the relevant standard setting organisations have the character of binding contractual obligations. Whether or not this is the case has not yet been decided by a German court. There are, however, sound arguments for the assessment of such policies as quasi-contractual and, thus, mandatory and binding obligations.

This leads to another problem under German Civil Law. Since the rules and policies regarding the standard setting process normally expressly refer to the 'members' of the concerned standard setting organisation, *e.g.* ETSI, it can be assumed that only members of the relevant standard setting bodies could raise a defense of breach of contract.

4.2 Objection Based on an Anticompetitive Refusal to License on FRAND Terms

Another possible defense for the defendant would be an objection based on the patent owner's anticompetitive refusal to license on FRAND terms. This would, however, require a market dominant position of the patent owner. According to the cited decisions of German courts the defendant would have such defense against an infringement claim if the defendant could prove that the patent owner actually refused a license on FRAND terms. This would, however, not prevent the patent owner from enforcing its patent, but rather oblige him to license the patent on FRAND conditions.

Moreover, the defendant has to prove that the licensing terms offered by the patent owner do not meet the appropriate standards of fairness, reasonableness and non-discrimination. In addition, according to the *Orange Book-Standard* decision of the Court of Appeals of Karlsruhe, the defendant could rely on this so called anti-trust objection based on Section 242 German Civil Code in connection with Article 82 EC only in the case the defendant itself had already offered the patent owner to

acquire a license on terms and conditions to be specified as appropriate. According to the requirements set out by the Court of Appeals of Karlsruhe in the *Orange Book-Standard* decision the defendant would have to propose terms which – within the range of FRAND terms – were the least favourable terms for them.

4.3 Defense Based on the Building of a Patent Ambush

Another, rather challenging approach would be a defense based on the patent owner's breach of competition law by creating a patent ambush. Whether and under which circumstances a late disclosure or concealment of essential patents could fall under Article 82 EC – or the relevant rules of German law – has not yet been decided by the courts.

It can, however, be assumed that the late disclosure of an essential patent during or after a standard setting process would be considered an infringement of Article 82 if (i) the patent owner had a dominant position in the relevant market (ii) the patent owner was member of a standard setting organization and, thus, obliged to disclose his patent and (iii) royalty rates would have been lower if the standard-setting process had not been misled in this way. It would, therefore, be relevant, whether there was an alternative technology available that would have been incorporated into the standard in case the existence of the patent in question had been disclosed.[55] To put forward sufficient evidence would obviously be very difficult if not impossible for the defendant. Whether a patent owner will be prevented from enforcing its patent in a patent ambush type scenario under German law has not been tested.

4.4 Action for a Preliminary Injunction

Finally, under German procedural law the defendant could consider to take a rather unusual, more aggressive approach. As an alternative to the rather defensive strategies set out above the defendant could start an action for a preliminary injunction against the patent owner. Such an injunction would aim at a license to use the relevant patent on FRAND terms.

In this case, the defendant filing the motion would have to prove that the conditions offered by the patent owner were not appropriate to meet the requirements of FRAND. Moreover, to obtain a preliminary injunction the defendant would need to show that the matter was urgent, *i.e.* that the defendant could not run its business any longer without a license.[56] This could for instance be true in case the defendant's customers were afraid of buying patent infringing products and were therefore threatening to terminate their supply contracts with the defendant.

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[55] *Cf. supra* note 33, at 7: 'Thus, if JEDEC, in the world that would have existed but for Rambus's deception, would have standardized the very same technologies, Rambus's alleged deception cannot be said to have had an effect on competition in violation of antitrust laws'.

[56] REICHHOLD, in: THOMAS/PUTZO, ZPO, Sec. 940 German Procedural Law, note 6 (27th ed. 2005); VOLLKOMMER, in: ZÖLLER, Zivilprozessordnung, Sec. 940 German Procedural Law, note 4 (26th ed. 2007).

However, a preliminary injunction forcing the defendant to enter into a license agreement with the applicant is quite exceptional under German law. Therefore, the prospects of success of such an application are small. In case such an action was successful this would, however, put the screws on the patent owner.

4.5 Conclusion

As a conclusion, a defendant in a patent infringement process should not hesitate to raise objections based on a patent ambush built by the patent owner or based on the patent owner's refusal to license on FRAND terms. One has, however, to be well aware of the difficulties to face. Without strong evidence of the claimant's anti-competitive behavior any objection in this respect is likely to be dismissed.

The Inadequacies of the Section 271 (e)(1) Jurisprudence of the United States Supreme Court

Martin J. Adelman

1. Background

I am honored to be a co-editor of this Festschrift and to have the privilege of writing an article in honor of Professor Joseph Straus. Professor Joseph Straus is a good friend of many years and as the Marshall Coyne Visiting Professor of International Law at George Washington University Law School, he and I have co-taught for the past six years a chemical/biotechnology patent law course. I also have had joy of assisting him in a small way in the creation of his baby, the Munich Intellectual Property Law Center. His fame as a patent law scholar is worldwide and I do hope in that capacity he agrees with me that the Supreme Court of the United States has not distinguished itself in its handling of 35 U.S.C. Sec. 271(e)(1).

The year 2005 saw a remarkable event in the Supreme Court of the United States. The innovative pharmaceutical industry, an industry that claims to believe in patents, fully supported an attack by one of its members, Merck KgaA, on patents covering upstream inventions, *Merck KgaA v. Integra Lifesciences I, Ltd.*[1] In siding with Merck KgaA, the Supreme Court may have gone far beyond the relatively minor limitations on patent rights provided in various of the world's patent systems under the rubric of experimental use.[2] In his opinion on remand, Judge Rader sounded the alarm, but the Federal Circuit proved indifferent to his plea.[3] To understand what happened in *Merck KgaA*, it is helpful to review the background of Sec. 271(e)(1)).

2. A Bit of History

In 1984 the Federal Circuit decided an important case involving a genus patent having as one of the disclosed species Flurazepam hydrochloride (Dalmane®), *Roche Products, Inc. v. Bolar Pharmaceutical Co.*[4] Flurazepam hydrochloride is chemically 7-chloro-1-[2-(diethylamino)ethyl]-5-(o-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one dihydrochloride with the following structural formula:

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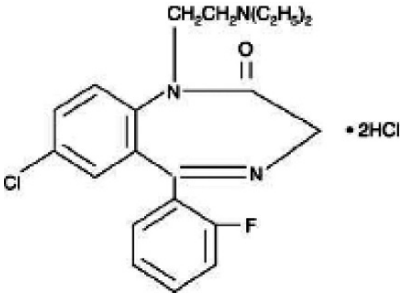
1 *Merck KgaA v. Integra Lifesciences I, Ltd.,* 545 U.S. 193 (2005).

2 For a thorough analysis of the law and literature regarding experimental use and research tool patents *see* PRINZ ZU WALDECK UND PYRMONT, Research Tool Patents After Integra v. Merck – Have They Reached a Safe Harbor?, 14 Mich. Telecomm. Tech. L. Rev. 367 (2008).

3 496 F.3d 1334 (Fed. Cir. 2007).

4 *Roche Products, Inc. v. Bolar Pharmaceutical Co.,* 733 F.2d 858 (Fed. Cir. 1984).



If one counts clockwise from the substituted nitrogen atom which is 1, then the oxygen atom attached to it is 2. The 2-fluorophenyl group (the fluorine is itself at the number 2 position of the benzene ring, a separate numbering system) is 5 and the chlorine atom is 7. United States Patent No. 3,299,053 ('053) granted to Hoffmann-La Roche Inc. on January 17, 1967 covered many 1 and 4 substituted amino alkyl 5-aromatic-3H-1,4-benzodiazepines. One claim, claim 11, is specifically directed to Flurazepam hydrochloride. Bolar imported Flurazepam during the lifetime of the '053 patent and Roche sought to enjoin any use covered by its patent until expiration. The issue presented to the Federal Circuit was whether the common law experimental use exception covered uses directed to showing bioequivalency in order to obtain marketing approval from the Food and Drug Administration (FDA) for its generic. Bolar did not challenge either the validity or its infringement on any other ground but that of experimental use.

The Federal Circuit held that importing Flurazepam for this limited purpose did not come within the common law experimental use exception. At the time of the court's decision Congress had not specifically decided on how long a generic should be held off the market based on the FDA's marketing approval of the innovative drug. Congress did specifically decide this question as part of the Hatch-Waxman Act,[5] legislation which provided for a patent term extension for certain patents, provided statutory authority for generics to file an abbreviated new drug application (ANDA), provided specifically for data protection in connection with such applications and added Sec. 271(e)(1) to overrule *Roche*. As a policy matter Sec. 271(e)(1) made sense as Congress in effect sought to separate patents from drug regulation and thus provided data protection for data submitted in connection with a new drug application while eliminating what could be viewed as data protection under the patent laws. Thus, patent control ends when the patent expires and FDA actions are

[5] The Hatch-Waxman Act is the name commonly used to refer to the Drug Price Competition and Patent Term Restoration Act of 1984, Pub.L. No. 98-417, 98 Stat. 1585 (1984) (codified at 21 U.S.C. Secs. 355, 360(cc) (2000), 35 U.S.C. Secs. 156, 271, 282 (2000)), as amended by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Pub.L. No. 108-173, 117 Stat.2066 (2003). For a detailed explanation of the Hatch-Waxman Act in its original form *see* WHEATON, Generic Competition and Pharmaceutical Innovation: The Drug Price Competition and Patent Term Restoration Act of 1984, 35 Cath. U. L. Rev. 433 (1986).

not in any way dependent on the existence or the nonexistence of patent protection on the innovative drug.[6] The relevant language chosen by Congress to disengage patent law from data protection follows:

> It shall not be an act of infringement to make, use, offer to sell, or sell within the United States or import into the United States a patented invention … solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use, or sale of drugs or veterinary biological products. [Emphasis added].

Since Congress intended to overturn *Roche*, it should be clear that a generic company would, after the enactment of Sec. 271(e)(1), be free to do bioequivalency tests free of the patent owned by the innovative company for that would be a use solely reasonably related to submitting information to the FDA. But what about an innovative company that would seek to market a benzodiazepine that came within one or more of the broad genus claims of the '053 patent, but which was not Flurazepam and hence would need a full series of tests for efficacy and safety? In short, what if an innovative pharmaceutical company were experimenting with species covered by the genus claims of the '053 patent? Clearly that type of action would not be solely for the purpose of submitting information to the FDA as its real intent would be to acquire new knowledge and hopefully enable it to make a species invention that would support a species patent. Moreover, the experiments would have nothing to do with data protection which would only be related to Roche's data submitted to the FDA for Flurazepam. There is nothing in the background or the language of Sec. 271 (e)(1) that would suggest protecting such an innovative pharmaceutical company from a claim of patent infringement. Of course an injunction preventing such work should not be available, *eBay Inc. v. MercExchange L.L.C.*,[7] as public health and safety has always been a basis for denying an injunction, but such experimental work would be subject to a claim for a reasonable royalty which under this first hypothetical should be very low.

A second hypothetical assumes that Roche had not been able to find a 1 or 4 substituted amino alkyl 5-aromatic-3H-1,4-benzodiazepine that it could bring to market. In short, assume for the moment that Flurazepam failed to receive FDA approval, but another innovative company was conducting experiments on a covered benzodiazepine during the life of the '053 patent. Again did Congress intend to provide a safe harbor under such circumstances? The answer again should be 'no' as this situation is far from the one found in *Roche* as again there is no data protection involved since under this hypothetical the FDA would not have approved of any compound embraced by any of the claims of the '053. Both hypotheticals are really far from *Roche* because the only issue in *Roche* was how much the public was going to have to pay for Flurazepam hydrochloride upon expiration of the '053 pat-

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[6] One dispute resolution panel determined that this exclusion at least insofar as it was limited to generics did not violate the TRIPs agreement, Canada – Patent Protection of Pharmaceutical Products, WT/DS114/R, 17 (March 2000).

[7] *eBay Inc. v. MercExchange L.L.C.*, 547 U.S. 388 (2006).

ent. Clearly price is not a public health issue for if it were, the patent system itself would be undermined. After all its purpose is to permit products to be priced above marginal cost in order to finance the development of new drugs and nobody has as yet proposed a cheaper and more effective system for financing drug development than the patent system and that condition will not change in our lifetime and in the lifetime of our children and probably their children.

3. Implantable Defibrillators

Both of the hypotheticals came before the Supreme Court in cases separated by 15 years. The first, *Eli Lilly and Co. v. Medtronic, Inc.*,[8] resulted from a major patent trial involving the legendary inventor of the implantable defibrillator, Dr. Michel Mirowski,[9] and his relationship to Medtronic, a pioneer in the development of implantable pacemakers. Medtronic owned the rights to Mirowski's inventions and returned them to Mirowski in 1972 when it decided that an implantable defibrillator was not practical. However, Mirowski implanted such a device in a patient at Johns Hopkins hospital in 1980 and obtained FDA approval for his device in 1985. Medtronic decided to enter the field of implantable defibrillators without a license under Mirowski patents, patents that were ultimately acquired by Cardiac Pacemakers, Inc. (CPI) through a sublicense from CPI's parent Eli Lilly & Co.

Mirowski's basic patent, U.S. Pat. Re. 27,757, and one of his improvement patents, U.S. Pat. 3,942,536, were asserted against Medtronic. Prior to trial Medtronic brought a motion for a summary judgment arguing that it was protected by Sec. 271 (e)(1). The trial court denied Medtronic's motion explaining:

> The statutory language of § 271(e)(1) clearly speaks in terms of the submission of information under a federal law regulating 'drugs'. Medtronic's invitation to construe the term 'drugs' to include federal laws regulating both drugs or devices must be rejected. The FFDC Act itself defines 'drugs' as excluding devices or their component parts or accessories. … While the FFDC Act undoubtedly is a federal law which by its terms regulates both drugs and devices, there is no indication in the statutory language of § 271(e)(1) that the phrase 'Federal law which regulates ... drugs' was meant to include anything but drugs as they are defined by the FFDC Act, and not both 'drugs' and 'devices'. Moreover, within the FFDC Act itself, separate and distinct procedures apply with regard to the manufacture, use, and sale of drugs and the manufacture, use, and sale of devices. … Finally, other sections of the 1984 Act distinguish between 'drugs' and 'devices', further indicating that when Congress intended to include

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[8] *Eli Lilly and Co. v. Medtronic, Inc.,* 496 U.S. 661 (1990).

[9] Dr Mirowski was inducted in the Inventors Hall of Fame in 2002. Its website indicates that Michel Mirowski conceived of the automatic implantable cardioverter defibrillator (ICD) in the 1960s after his mentor died of a heart arrhythmia. It describes the impact of his work:

> Facing formidable opposition from the medical community, Mirowski led a team that designed and tested the first ICD, which was also the first alternative to drugs and surgery. The first human implant occurred in 1980. The device was originally the size of a deck of cards and weighed nine ounces. Since then, ICDs have gotten smaller, but the technology remains the same. The device has saved hundreds of thousands of patients worldwide. Available at <http://www.invent.org/Hall_Of_Fame/175.html> (as of June 2008).

> devices within the coverage of a section, it clearly specified as much, rather than assume the term 'drugs' to include 'devices'.
>
> More compelling, perhaps, than the statutory language of § 271(e)(1), however, is the legislative history of the section itself. Repeatedly the House report indicates that the specific purpose of § 271(e)(1) was to overrule the Bolar decision and allow the bioequivalency testing of generic drugs without fear by manufacturers of patent infringement. Emphasizing the limited nature of the exemption, the House Report states that the purpose of § 271(e)(1) 'is to establish that experimentation with a patented drug product, when the purpose is to prepare for commercial activity which will begin after a valid patent expires, is not a patent infringement.' … Nowhere in the legislative history is there any indication that Congress had a broader intention to include medical devices within the coverage of § 271(e)(1). Rather, the legislative history evinces the narrow purpose of Congress to advance the quickened entry of generic drugs onto the market through unhampered bioequivalency testing. Similar testing, it is worthwhile to note, is not required of medical devices.[10] [Internal citation omitted].

Medtronic then proceed to lose badly before the jury as the jury awarded more than $26,000,000 in damages.[11] The trial judge then issued the following injunction:

> 1. Medtronic, Inc., its officers, agents, directors, servants, employees, attorneys, and all others acting in concert with it or through them, are permanently enjoined and restrained from infringing (directly, contributorily, or by inducement) ... [the Lilly patents] ... until October 26, 1990, including, but without limitation, by manufacture, distribution, use (including animal and human tests), sale, subassembly in the United States for distribution abroad, or any other activity which would have as its natural or intended purpose the sale of any of the following:
>
> (a) Model 7210 Cardioverter used in connection with the Model 6882 lead; ...
>
> (c) Model 7215 PCD or 7216 PCD used in connection with the Lead Models 6891, 6892, 6893, or 6917; ....
>
> 3. Medtronic, Inc., its officers, agents, directors, servants, employees, attorneys, and all others acting in concert with it or through them, are permanently enjoined and restrained from using in the United States the data generated from the infringing, manufacture, use, or sale of the Model 7210 Cardioverter until March 9, 1993, and the Models 7215 PCD or 7216 PCD until October 26, 1990. Such enjoined activities include, by way of example without limitation, marketing, promoting, showing or displaying said data at medical meetings, investment or stock analysts meetings, shareholder meetings, or other public presentations.[12]

Notice that Medtronic was not copying CPI's defibrillators, although it was infringing two of its patents. Hence the trial court's decision to enjoin Medtronic was probably a mistake for Medtronic's implantable defibrillators may have been or had the potential of becoming superior to those marketed by CPI and hence the public should not have been deprived of the benefit of superior defibrillators. In addition, the jury's monetary award was probably excessive as it is difficult to believe that

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[10] *Eli Lilly and Co. v. Medtronic, Inc.*, 5 U.S.P.Q.2d 1760 (E.D. Pa. 1987).

[11] The judgment as reported at 696 F.Supp. 1033 (E.D.Pa.,1988) was in the amount of $26,500,000, plus an additional royalty of $166,000 for a total award of $26,666,000.

[12] 735 F.Supp. 652 (E.D.Pa. 1990).

Medtronic's clinical work in developing its implantable defibrillators inflicted this much damage on CPI's business. The award probably included money for the loss to CPI caused by the projected earlier entry by Medtronic into the implantable defibrillator market owing to its infringement during the lifetime of the patents. However, it is not in the public interest to measure damages in this fashion. CPI was only entitled to a reasonable royalty where genus claims are in effect being exploited commercially and a company is trying to develop a better product that comes within the claims rather than simply copy the commercial product as is the case with generic drugs.

In any event the Federal Circuit reversed and the Supreme Court affirmed. In its decision the Supreme Court ignored the question of what the word 'solely' in the statute was intended to mean. Instead it focused on whether medical devices were covered by Sec. 271 (e)(1). In doing so it remarked that '[t]he phrase "patented invention" in § 271(e)(1) is defined to include all inventions, not drug-related inventions alone.'[13] While this was said so as to justify covering medical device patents, the language itself at least opens the door to an interpretation that any patent used to generate information reasonably relating to FDA requirements would be subject to its reach. This would apparently include patented research tools used to generate such information. Moreover, the Court did not discuss the question of how its decision fit in with Congress's express wish to overturn *Roche*. Nevertheless, the Court had only applied Sec. 271 (e)(1) to patents that were in commercial use. Indeed, had the trial court denied injunctive relief as it should have and no doubt would have under *eBay*, and had not allowed monetary relief based on earlier post-expiration competition, the result would have been close to what the Court actually achieved without stretching the language of Sec. 271(e)(1).

4. Angiogenesis and a Search for a Cancer Cure

The patent system can live and did live with having the Supreme Court extend Sec. 271(e)(1) to medical devices even though it was most likely intended by Congress to cover only drugs. But what about the far more important issue of whether the words 'patented invention' refers to patents that do not cover products that are already approved by the FDA as both the patent in *Roche* and the patents in *Lilly* did? For some clues we turn to the case involving the second hypothetical, *Merck KgaA v. Integra Lifesciences I, Ltd.*[14]

Merck KgaA involved four patents flowing from the discovery that a triplet of amino acids, Arg-Gly-Asp (RGD), promotes cell adhesion which later turned out to be due to their binding to $\alpha_v\beta_3$ integrins which are cell surface receptors. Years after this discovery it turned out that scientists believed that anti-cancer drugs might be possible by inhibiting angiogenesis through inactivating $\alpha_v\beta_3$ integrins.

Specifically involved in the litigation were claim 8 of U.S. Patent No. 4,792,525 ('525), claims 14-18 of the U.S. Patent No. 5,695,997 ('997), claims 4 and 8 of U.S.

[13] 496 U.S. at 665.

[14] *Merck KgaA v. Integra Lifesciences I, Ltd.,* 545 U.S. 193 (2005).

Patent No. 4,879,237 ('237). and claim 1 of U.S. Patent No. 4,789,734 ('734). These claims read:

> Claim 8 of the '525:
>
> A substantially pure peptide including as the cell-attachment-promoting constituent the amino acid sequence Arg-Gly-Asp-R wherein R is Ser, Cys, Thr or other amino acid, said peptide having cell-attachment-promoting activity, and said peptide not being a naturally occurring peptide.
>
> Claims 15-18 of the '997:
>
> 15. A method of blocking cell surface receptors which mediate cell attachment activity, comprising: contacting said cell surface receptors with a non-naturally occurring peptide including RGDX where X is an amino acid and the peptide has cell attachment activity.
>
> 16. The method of claim 15 wherein said peptide is in soluble form.
>
> 17. A method of blocking cell surface receptors which mediate cell attachment activity, comprising: contacting said cell surface receptors with a peptide including RGDX where X is an amino acid and the peptide has cell attachment activity and the peptide has less than about 31 amino acids.
>
> 18. The method of claim 17 wherein said peptide is in soluble form.
>
> Claims 4 and 8 of the '237:
>
> 4. A method for detaching animal cells from a substrate to which they are bound in an Arg-Gly-Asp mediated manner, comprising contacting said bound cells with a solution containing a non-naturally occurring peptide consisting essentially of the amino acid sequence Arg-Gly-Asp-Y, [wherein Y] [sic] is any amino acid such that the peptide has cell-detachment activity.
>
> 8. A method of detaching animal cells from a substrate to which they are bound in an Arg-Gly-Asp mediated manner, comprising contacting said bound cells with a peptide consisting essentially of the amino acid sequence X-Arg-Gly-Asp-Y wherein X is zero to thirty amino acids and Y is one to thirty amino acids, such that the peptide has cell detachment promoting activity.
>
> Claim 1 of the ‘734:
>
> A substantially purified cell surface receptor derived from mesenchymal tissue and capable of binding to a peptide containing the amino acid sequence Arg-Gly-Asp, comprising a glycoprotein composed of at least two polypeptides of about 115 and 125 kD, respectively, as determined by SDS-PAGE under reducing conditions which selectively binds to vitronectin, but not to fibronectin.

Turning first to claim 8 of the ‘525, it is clearly a generic claim covering a large number of compounds. Arguably if experimental use covers the search for a particular species within a broadly defined genus, the patentee will not lose its reward since the commercial use of any particularly useful specie will infringe the genus claim. However, if one uses the genus invention in this fashion and then makes a selection invention, but intends to use it commercially only after the expiration of the genus patent, the experimental use defense, if available, would deprive the pat-

ent owner of any share in the benefits received by the inventor of the species. Indeed, in *Merck KgaA*, Merck announced that it would not exploit commercially its selection invention until Integra's patents expired.

The '237 and '734 patents are clearly directed to laboratory experiments and are research tool patents. If experimental use applies to any research tool patent useful for drug or medical device development, then these patents are essentially worthless. This leaves the '997 patent for discussion. It appears on its face to cover both laboratory experiments as well as a medical method that uses a compound having a functioning RGD group. Hence it is not a pure research tool patent and probably is best analyzed in the same fashion as the '525. In any event to understand the Supreme Court's decision, it is helpful to review how it saw the facts:

> Beginning in 1988, petitioner Merck KGaA provided funding for angiogenesis research conducted by Dr. David Cheresh at the Scripps Research Institute (Scripps). … Angiogenesis is the process by which new blood vessels sprout from existing vessels; it plays a critical role in many diseases, including solid tumor cancers, diabetic retinopathy, and rheumatoid arthritis. … In the course of his research, Dr. Cheresh discovered that it was possible to inhibit angiogenesis by blocking the $\alpha_v\beta_3$ integrins on proliferating endothelial cells. … In 1994, Dr. Cheresh succeeded in reversing tumor growth in chicken embryos, first using a monoclonal antibody (LM609) he developed himself and later using a cyclic RGD peptide (EMD 66203) provided by petitioner. … Dr. Cheresh's discoveries were announced in leading medical journals and received attention in the general media.
>
> With petitioner's agreement to fund research at Scripps due to expire in July 1995, Dr. Cheresh submitted a detailed proposal for expanded collaboration between Scripps and petitioner on February 1, 1995. … The proposal set forth a 3-year timetable in which to develop 'integrin antagonists as angiogenesis inhibitors,' …, beginning with in vitro and in vivo testing of RGD peptides at Scripps in year one and culminating with the submission of an IND to the FDA in year three, … Petitioner agreed to the material terms of the proposal on February 20, 1995, …, and on April 13, 1995, pledged $6 million over three years to fund research at Scripps, … Petitioner's April 13 letter specified that Scripps would be responsible for testing RGD peptides produced by petitioner as potential drug candidates but that, once a primary candidate for clinical testing was in 'the pipeline,' petitioner would perform the toxicology tests necessary for FDA approval to proceed to clinical trials. … Scripps and petitioner concluded an agreement of continued collaboration in September 1995.
>
> Pursuant to the agreement, Dr. Cheresh directed in vitro and in vivo experiments on RGD peptides provided by petitioner from 1995 to 1998. These experiments focused on EMD 66203 and two closely related derivatives, EMD 85189 and EMD 121974, and were designed to evaluate the suitability of each of the peptides as potential drug candidates … Accordingly, the tests measured the efficacy, specificity, and toxicity of the particular peptides as angiogenesis inhibitors, and evaluated their mechanism of action and pharmacokinetics in animals. … Based on the test results, Scripps decided in 1997 that EMD 121974 was the most promising candidate for testing in humans. … Over the same period, Scripps performed similar tests on LM609, a monoclonal antibody developed by Dr. Cheresh.… Scripps also conducted more basic research on organic mimetics designed to block $\alpha_v\beta_3$ integrins in a manner similar to the RGD peptides, …; it appears that Scripps used the RGD peptides in these tests as 'positive controls' against which to measure the efficacy of the mimetics, …

> In November 1996, petitioner initiated a formal project to guide one of its RGD peptides through the regulatory approval process in the United States and Europe. … Petitioner originally directed its efforts at EMD 85189, but switched focus in April 1997 to EMD 121974. … Petitioner subsequently discussed EMD 121974 with officials at the FDA. … In October 1998, petitioner shared its research on RGD peptides with the National Cancer Institute (NCI), which agreed to sponsor clinical trials. … Although the fact was excluded from evidence at trial, the lower court's opinion reflects that NCI filed an IND for EMD 121974 in 1998.[15] (Internal citations omitted).

The Supreme Court then went on to explain how it saw the distinction between those experiments that are reasonably related and those that are not. In doing so it left open the key question of whether Sec. 271(e)(1) applied only to patents that covered products or methods of making them that might someday be the subject of an application for marketing approval, or all patents that might be used to generate information for submissions designed to obtain market approval such as those covering research tools. In addition, with particular attention to the Supreme Court's footnote, the reader should consider whether the Supreme Court had actually read the claims to determine whether some or all of them were directed to research tools:

> The Court of Appeals' conclusion that § 271(e)(1) did not protect petitioner's provision of the patented RGD peptides for research at Scripps appeared to rest on two somewhat related propositions. First, the court credited the fact that the 'Scripps-Merck experiments did not supply information for submission to the [FDA], but instead identified the best drug candidate to subject to future clinical testing under the FDA processes.' … The court explained:
>
> > 'The FDA has no interest in the hunt for drugs that may or may not later undergo clinical testing for FDA approval. For instance, the FDA does not require information about drugs other than the compound featured in an [IND] application. Thus, the Scripps work sponsored by [petitioner] was not 'solely for uses reasonably related to' clinical testing for FDA.'
>
> Second, the court concluded that the exemption 'does not globally embrace all experimental activity that at some point, however attenuated, may lead to an FDA approval process.'[16]
>
> We do not quibble with the latter statement. Basic scientific research on a particular compound, performed without the intent to develop a particular drug or a reasonable belief that the compound will cause the sort of physiological effect the researcher intends to induce, is surely not 'reasonably related to the development and submission of information' to the FDA. It does not follow from this, however, that § 271(e)(1)'s exemption from infringement categorically excludes either (1) experimentation on

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[15] 545 U.S. at 197-99.

[16] The Court of Appeals also suggested that a limited construction of § 271(e)(1) is necessary to avoid depriving so-called 'research tools' of the complete value of their patents. Respondents have never argued the RGD peptides were used at Scripps as research tools, and it is apparent from the record that they were not. (*See* NEWMAN, dissenting: 'Use of an existing tool in one's research is quite different from study of the tool itself').. We therefore need not – and do not – express a view about whether, or to what extent, § 271(e)(1) exempts from infringement the use of 'research tools' in the development of information for the regulatory process.

> drugs that are not ultimately the subject of an FDA submission or (2) use of patented compounds in experiments that are not ultimately submitted to the FDA. Under certain conditions, we think the exemption is sufficiently broad to protect the use of patented compounds in both situations.[17] (Internal citations omitted).

The Supreme Court seemed to focus on 'patented compounds' which suggests it was only talking about claim 8 the '525 patent. What about the other patents in the litigation and particularly the research tool patents? The Supreme Court in its footnote said such patents were not involved in the case even though they plainly were involved. In addition, in a real sense the basic genus patent was a research tool patent as it was just an invitation to experiment on species within the broad patented genus. It didn't cover any specie that was even close to being ready for serious consideration as a drug candidate, a very different situation than where the patent under consideration covers a product on sale and the one who uses the patent is seeking to copy the product upon expiration or is willing to challenge its validity.

In any event on remand to the Federal Circuit the majority of the panel in *Integra Lifesciences I, Ltd. v. Merck KgaA*[18] refused to look at the details of the patents on the theory that the Supreme Court had read them and had decided that they did not cover research tools. Judge Rader in dissent did not abdicate his responsibility to actually study the claims, some of which as shown above cover research tools. On the theory that at least two of them are research tool patents, he would have sent the case back to the trial court. However, the majority reasoned:

> The Court held and all parties agree that the RGD peptides were not used as a research tool.[19] The Court disposed of this aspect with the statement:
>
> > Respondents have never argued the RGD peptides were used at Scripps as research tools, and it is apparent from the record that they were not. … We need not-and do not-express a view about whether, or to what extent, *§ 271(e)(1)* exempts from infringement the use of 'research tools' in the development of information for the regulatory process.
> >
> > …
>
> Contrary to the position of our colleague in dissent, the Court's ruling and our application thereof casts no 'large shadow' on the subject of 'research tools.' On remand to this court, the parties emphatically confirmed that research tools were not at issue. … The Supreme Court has ruled that this case does not raise that issue. Hence, its resolution is outside the Supreme Court's mandate. Integra has never argued, and does not now contend, that any of its claims at issue belong to a class of patent claims outside the reach of that statutory exemption. There is no 'devastating impact on research tool inventions,' …; indeed, the issue is not present, and the criticism inapt.[20] (Internal citations omitted).

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[17] 545 U.S.at 205-06.

[18] *Integra Lifesciences I, Ltd. v. Merck KgaA,* 496 F.3d 1334 (Fed. Cir. 2007).

[19] The National Institutes of Health defines 'research tools' as 'tools that scientists use in the laboratory including cell lines, monoclonal antibodies, reagents, animal models, growth factors, combinatorial chemistry and DNA libraries, clones and cloning tools (such as PCR), methods, laboratory equipment and machines.'

[20] 496 F.3d at 1347-48.

This reading of the Supreme Court's opinion regarding research tools is wrong. Clearly if the Supreme Court was not granting any rights under research tool patents, then when it spoke of patented products, it should have expressly limited its comments to those patents that might cover a product which would be the subject of a new drug application. At best only two of the four patents in suit met this definition as the other two were clearly research tool claims albeit research tools based on the basic genus invention. Judge Rader in a well reasoned and convincing dissent, after explaining all of the claims, commented:

> Sadly this court does not even examine the patents at issue in this case. This court, noted for its emphasis on claims as definers of patent scope, ironically does not recite or analyze the claims of these patents in the slightest. Moreover this court speaks in broad terms about the experiments and results without specifying which patented compound or method was in use in the experiments. A careful examination of the patents shows that two of them have no application at all outside of a laboratory. If the patents in this case are not research tools, then of course this court could quickly construe the claims and show that they claim drugs or other products likely to undergo FDA clearance, not simply laboratory methods. Unfortunately even a cursory analysis of the patents (undertaken in this dissent) shows that two of them have no application outside the laboratory.
>
> Rather than construe the claims, usually the first task in any patent case, this court relies on a letter from one of the parties explaining that it does not wish to rely on the research tool exception. This supposedly authoritative letter appeared after the oral argument before this court in an attempt to rectify counsel's unresponsive performance. With the patents already expired, Integra may pursue a strategy to protect its entire multi-million-dollar verdict. If Integra had really not wished to rely on research tool patents, then it would not have asserted them in the first place. In any event, because four patents are part of this case, this court has a responsibility to construe their claims. By treating these research tools the same as drugs potentially needing FDA clearance, this court's opinion poses a danger to the entire research tool industry.
>
> ***
>
> Sadly today's opinion misreads the Supreme Court's decision. This court reads the Supreme Court's decision too broadly because it includes within the exemption the *'237* and *'734* patents, which are obviously research tools. This overbroad interpretation could obliterate all value for the hypothetical invention discussed above and with it the incentives for development of these inventions outside of the pharmaceutical industry itself. The pharmaceutical industry itself, of course, still needs these tools and will invest in their development, but outside that community, research tools will have no value. In other words, this opinion could shift all control of research and the patented tools that facilitate research to the insular pharmaceutical industry. Universities and independent researchers will have to understand that their work on research tools is likely to amount only to a charitable (but nondeductible) gift to the pharmaceutical industry.
>
> ***
>
> The Supreme Court in Merck did not expect such a broad result. Instead, as noted above, the Supreme Court specifically did not address 'whether, or to what extent, *§ 271(e)(1)* exempts from infringement the use of "research tools" in the development of information for the regulatory process.' … Thus, upon remand, this court has the responsibility to analyze carefully the claims and apply the exemption to protect the

> selection of 'patented compounds' even in the preclinical stage, while continuing to protect research tools. This court has the responsibility to protect FDA processes and research tool patents alike.[21]

It is unfortunate that the Supreme Court which is not very busy as it takes very few cases each year failed to do a clear, thoughtful and thorough job in this important case. Not only did it leave unanswered the position of research tools with respect to Sec. 271 (e)(1), but it never discussed the fairness of holding that, with respect to the genus claim, it's decision would deprive the patent owner of all its benefits. Perhaps the Supreme Court could have said that the patent system permits the development of improvements that will not be commercially used until the basic patent has expired in order to stimulate the owner of the basic patent to make such improvements itself and thus get patents on them which will project further out into the future. It might also have said that while the research tool claims in suit were infringed, they were intimately associated with the discovery that supported the patentability of the genus, and hence such related research tool patents should be embraced by Sec. 271 (e)(1). Instead it chose to render an ambiguous decision that left the law with respect to research tool patents in a state of uncertainty. Judge Rader would have saved research tool patents, but the Federal Circuit unfortunately refused his invitation to do so.

[21] 496 F.3d at 1348-53.

Legal and Moral Reflections on Modern Biotechnology in Use & Misuse*

Shoshana Berman

> *Only the law can tame the unleashed genie of science, so that it remains the servant, not the master of mankind.…Without adequate legal control, our affluent society could become an effluent society!*
>
> Honorable Chief Judge Howard T. Markey[1]

1. Introduction

It is an established truth that science serves humanity by developing new and useful technologies, discovering new phenomena, forwarding knowledge and understanding. 'Science seeks certainty … and tells us what we can do… but it is for the law to tell [science] whether and how to do',[2] even if it is in a climate of uncertainties. As a natural phenomenon, scientists tend to concentrate on the beneficial uses of scientific research, but each of them should also concentrate on the potential destructive misuses, in as far as is known, assumed or reasonably predicted. Considering the fast accumulation of sophisticated scientific and biotechnological information, it is upon the scientist and his community to inform and warn the public about the potential destructive misuses of biotechnological research and findings. It is instrumental for the public to be aware of the risks posed by certain dangerous biological agents that are used, manipulated or developed in the course of biotechnological research. The public must be aware of and be reminded that certain biological agents can be used as biological lethal weapons for mass-destruction, or misused for deliberately inflicting infectious diseases. This can be done either by directly spreading common pathogens or by indirectly contaminating food-products, water resources, crops, animal food and feed, *etc.* It is known that certain lethal biological agents can be transformed into more lethal forms or may even be specifically engineered as such. It is upon the public at large, in applying its collective moral conscience, guided by relevant knowledge and information, to choose what scientific research and advanced technologies should be furthered, banned, or temporarily withheld.

It is to be emphasized that the international community has already long ago expressed its determination 'to exclude completely the possibility of bacteriological

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* Dedicated to Prof. Dr. Dres. h.c. Joseph Straus – A Pioneer in blending Law, Science & Technology and a Master in applying it in Legal Theory, Education, and Practice. A man of vision, unlimited intellectual capacity and virtuosity in legal writing and expression. Be he blessed for continuing the teachings of Prof. F.K. Beier.

1 MARKEY, Science and Law; The Friendly Enemies, The Francis Davis Lecture on Law and Technology, Franklin Pierce Law Center, 30 IDEA, The Journal on Law &Technology 13-15 (1989).

2 *See id.*

(biological) agents and toxins being used as weapons…[it being] repugnant to the conscience of mankind'.

In signing the Biological and Toxin Weapons Convention of 1972 (BWC),[3] in adherence with the Geneva Protocol[4] and principles of the UN Charter, each State Party undertook:

> [N]ever, in any circumstances to develop, produce, stockpile or otherwise acquire or retain: (1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; [and or] (2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.[5]

However, the BWC does not contain a mechanism for its implementation. It was observed that because of the dual-use possibilities and blurred borders between peaceful and offensive uses of biotechnology, it is difficult to implement the BWC.[6] In being an international instrument, its implementation was and still is in the realm of each nation. This is an ongoing task. It is instrumental to implement the strict prohibitions vital for the survival of humanity, but it is also instrumental to ensure the furtherance of peaceful biotechnological research.

Freedom of scientific research, publication and dissemination of its findings is recognized in the civilized world as part of the human basic right for 'freedom of expression'. It is in the public interest to observe and protect these rights. However, in confronting today's threats and potential dangers, it is imperative to frame their protection within a legal framework, adequately balancing between 'fair and legitimate uses' and the potential 'destructive misuses'. Modern biotechnology has to strike the delicate balance between conflicting and competing interests, in order to protect the scientist in his working environment, and the public at large, in its extended environment. This has to be the 'oracle' and guiding code of all scientific research and its neighboring activities. Commercialization of biotechnological findings became an important vehicle in the knowledge-based global economy, but it is the law that makes them merchantable by securing their intellectual property rights. It is upon the law, and especially intellectual property law, to act as the 'Gatekeeper' of 'Morality and Public Order', and 'to tame the genie of science', although not too severely, for the present and future generations. There is a need for an interactive collaboration between the scientific community, the public at large, through its legislative bodies, the legal practitioners, the media and the judiciary in providing a balanced adequate normative infrastructure, designed for ensuring furtherance of

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[3] Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and their Destruction (BWC), signed on April 10,1972 .

[4] Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on June 17, 1925.

[5] Article 1 1972 BWC, *supra* note 3

[6] *See* Jayantha DHANAPALA, U.N. Under-Secretary-General for Disarmament Affairs, Opening Statement for the in BioWeapons Prevention Project Launch, Geneva, Nov. 11, 2002, available at <http://disarmament.un.org/speech/11nov2002.htm> (as of May 2008).

scientific research and free dissemination of its results, subject to protection of public health, security and safety.

1.1 Biotechnology in the Dual-Use Dilemma

Although biotechnology is not a new technology, in the last 30-40 years it demonstrates itself in a diversity of new 'get-ups' and a wide range of new procedures, such as genetic engineering; bioengineering; artificial selection, modification and manipulation of biological agents. All the laboratory-based techniques such as rDNA; tissue culture processes, gene-transfer techniques and other various methods for manipulating organic material, are applied with a purpose to serve humanity, medicine, agriculture, animal life, food-supply and the environment. Dispersion of knowledge, rapidity of innovation and invention are encouraged by the social and economic regimes of many nations. This is also the case for biotechnological research and its flourishing development for procurement of new products and processes.

The major components of biotechnology are 'biological agents' which are dealt with, kept, developed, used for research, handled, possessed, stockpiled or transferred, almost daily, in the realm of institutional or private biomedical and microbiological laboratories, or on the premises of biotechnological industries. Many new techniques and procedures are invented for manipulating and treating biological agents and a wide range of innovative equipment is available. Until not long ago the main concern, surrounding practice and research in biology, was focused on safety measures in the 'work place', mainly for the protection of researchers and 'workers', dealing in dangerous biological agents, especially in micro- biological laboratories. Microbiological laboratories have been considered as work places that pose infectious disease risks to persons that work in the laboratory or are in its vicinity. The history of microbiology describes laboratory-associated infections and cases of typhoid, cholera, brucellosis, and tetanus. A number of cases were attributed to carelessness or poor technique in the handling of infectious materials. 'Handling of cultures or specimens or the inhalation of dust containing dangerous organisms [was found] eminently dangerous to laboratory workers…';[7] 'Exposure to infectious aerosols was considered as the most common source of infection.'[8] In the 1990s, a growing concern was expressed about the re-emergence of M tuberculosis. The 'routine application of recombinant DNA technologies has required a thorough risk assessment of their inherent unknowns.'[9]

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[7] *See* STEBBINS, Biological Weapons Production, available on the website for the Federation of American Scientists (FAS) at <http://www.fas.org/programs/ssp/bio/resource/introtobw.html> (as of May 2008).

[8] *See* Introduction, in RICHMOND/MCKINNEY (eds), Bio-safety in Microbiological and Biomedical Laboratories (4th ed. 1999), available at <http://www.cdc.gov/OD/ohs/biosfty/bmbl4/bmbl4toc.htm> (as of May 2008).

[9] *Id. See also* STEBBINS, 'Some lessons learned from the Anthrax Attacs', SEEDMAGAZIN.COM, Materials & Processes, October 2, 2006, available at <http://seedmagazine.com/news/2006/10/some_lessons_learned_from_the.php> (as of May 2008).

Nevertheless, it seemed that the scientific community assumed that in the course of scientific research, all manipulations with biological agents are legitimate for beneficial R&D. For years, a strong tendency has existed by the scientific community, to oppose intrusive regulation of their work. It was widely propagated and accepted that all scientific research has to rely on self-governance by the scientists depending on their integrity, morals and stringent ethical rules, rather than being incarcerated into legal normative frameworks, prescribed by the legislators.

Unfortunately, in result of the tragic events of September 11, 2001, followed by a wave of Anthrax envelopes dispatched in the USA, the attention of the world community has been focused on the hazardous aspects of biotechnology, which although known from before, were somehow, generally disregarded. The recent events have tilted the balance, justifying rethinking of existing policies and change of approach. It became clear that biotechnology in its manifold 'get-ups' and 'dual-use' processes and products, alongside its legitimate uses, poses a 'clear and present danger' if used for destructive purposes. The world community has been reminded that certain biological agents, *e.g.,* toxins, viruses and bacteria, innocently dealt with or invented and developed for scientific research or medicine have been and can be used as biological weapons for mass-destruction. This depends on the nature of the biological agent. its preparation; its ability for 'survival' in the environment; its dispersion ability; scope of contamination, *etc.* Scientific writings underlined the difficulty in detectability and the delayed *ouevert* effect of a released biological agent. Voices stressed the simplicity of access to dangerous biological agents, easy development and simple employment for bioterrorism in whatever destructive manner, 'not entailing excessive costs'!

> Pathogens can be obtained from…[their] natural environment, … [from] a microbiology laboratory or bank … An alternative to acquiring agents is creating them … Advances in biotechnology have made it possible to synthesize certain viruses based on their genome, or on genetic instructions … or to modify agents and alter their function.[10]

It was stressed that agents modified for increased pathogenecity and a shorter incubation period could cause severe, fast-acting diseases. Other modifications could make treatments, vaccines, or the body's immune system, useless.[11] Attention was drawn to possible dangers if deadly microorganisms may unintentionally, through negligence or carelessness, 'escape' from a laboratory or while in transit. It was also stressed that in course of dealing with such agents, a scientist may not knowingly become infected by a life-threatening disease and become a carrier of it into his community or even further. In cases of recklessness or negligence, he may enable access to such agents for hostile purposes.

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[10] *See supra* note 8

[11] *See* STEBBINS, 'Biological Weapons Production', available on the website fo the Federation of American Scientists (FAS) at <http://www.fas.org/programs/ssp/bio/resource/introtobw.html> (as of May 2008).

It is claimed that biotechnology has reached its peak and enables unlimited intervention in any life form on earth, providing tools to shape future generations and even substitute life forms by synthetic living organisms built 'from scratch'.[12] It has been observed that many of the new techniques, tools and technological equipment used in beneficial procedures are misused for destructive manipulations using the same knowledge, sometimes obtained from easy accessible scientific literature. Questions are raised as to its openness.

Considering the duality of biotechnological R&D, it is essential that each practicing scientist, in working with dangerous agents liable to be used as biological weapons, should remember at each stage of his scientific work that he is in the forefront for preventing or minimizing any possible misuse. He is the master of knowledge, thus it is his responsibility to take precautionary measures, in as much as possible and reasonable, in order to prevent such occurrences. Adherence to ethical guidelines and moral principles by each individual scientist and his peers is very important, but apparently not sufficient, anymore.

It is important not to withhold incentives for innovation, encouraging development of countermeasures and promoting investments secured by the patent systems. However, it is more important to ensure that the inventors and investors be aware of the dangers their enterprises may pose to public security, health and safety. The general clause denying patentability to inventions challenging 'public order or morality' may prove its impotency in such cases.

Biological weapons such as disease-causing bacterial agents have a long history of being used in battle along chemical and nuclear weapons, for military purposes and not just as strategic deterrents. It is reported that 'natural pathogenic microorganisms, such as anthrax, plague, yellow fever, smallpox and their toxic products were used in weaponization processes by culturing these agents, converting and using them in powder or liquid form, for arming rockets, warheads short or long range missiles, etc'. It is recognized that the dual-use characteristics of biotechnology and its products pose a difficult dilemma for the scientific and legal communities and for the public at large. However, while science races ahead in an unprecedented pace, law limps heavily in its far back and the public remains dormant until some disaster scares it. Considering the new developments and the presently known dual-uses of biotechnology, it may be said that there is already a public consensus that biotechnological research in dealing with dangerous biological agents requires a strict and comprehensive normative framework. Although the Geneva Protocol prohibits use of chemical and biological weapons in warfare and the BWC restricts countries from developing, producing, stockpiling, or acquiring biological agents, weapons, and equipment outside of peaceful purposes, these international legal instruments are not equally implemented. Many of the signatory nations, in adhering to the convention, have prohibited further development of biological weapons

[12] *See e.g.* HOLT, Synthetic genomes brought closer to life, 26 Nature Biotechnology 296 (2008) reporting on Craig Ventor's invention of synthetic DNA. Craig Venter's first successful synthesis of a genome was published earlier that month, *see* GIBSON ET AL., Complete Chemical Synthesis, Assemble and Cloning of a *Mycoplasma Genitalium* Genome, 319 Science 1215 (2008).

and destroyed their existing arsenals, but it is known, that some of the adhering parties have secretly continued and some non-parties are even hurriedly competing in developing new sophisticated biological weapons.

It should be mentioned that most nations in the civilized world have provided bio-safety regulations aiming to ensure safe practice and control in 'dealing' with dangerous biological agents in microbiological and biomedical laboratories. These statutory provisions are reviewed by their legislators from time to time. It is widely recognized that 'strict adherence' to these [regulations] is contributing 'to a healthier and safer work environment for researchers, their co-workers, and the surrounding community'.[13] However, this does not override the general resistance of the practicing scientist towards 'intrusive' regulation of biotechnological research and its products. Some scientists still proclaim their preference for 'wild science' to be self-governed, rather than regulated by legislators. Regulating the publishing of scientific material is strongly criticized. Recommendations for self-screening by scientists and editors of scientific journals, is strongly propagated. It is claimed that considering the affluent sources of biological information, regulating scientific publications on a national level, is useless.

But as said, in light of the disastrous events and future threats and dangers in the year of 2001, long existing concepts begin to change. It became clear that a thorough examination of the existing bio-safety regulations in the field of biotechnological research is to be performed with a view on bio-security, subject to national security concerns of each nation. Increased awareness, preparedness and an immediate vigorous response to the serious threats on public health, safety and security, became an immediate must.[14] Policymakers, the legal and the scientific community at large, were urged to give an adequate response to this challenge.

Some nations responded immediately in a comprehensive well-balanced manner, some in a hasty non-balanced manner, and some have not responded, yet.

1.1.1 A Random-Look on Bio-Safety & Bio-Security Provisions

Shocked by the disastrous attack of September 11, 2001, on the World Trade Center, followed a week later, by letters containing anthrax spores, which killed five people, infected 22 others and caused an international trauma,[15] many nations, *e.g.*, the United States, the United Kingdom and the European Union, responded to the emergency situation, quickly and vigorously. Existing legal frameworks regulating biotechnological research were strengthened, criminal punishment toughened and new stringent legislation was enacted to prevent use of biological agents as weapons of mass destruction, prohibiting malicious transfer or intentional destructive release. Stricter oversight and inspection procedures and enhanced safety and biosecurity measures were prescribed for applying in biomedical laboratories, dealing with 'dual-use' dangerous biological agents, in order to prevent unwanted access to or unintentional escape or seepage of these agents.

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[13] *Supra*, note 8, chapter on 'Bio-safety measures'.
[14] *See* Michael T. Osterholm, 'A Weapon the World Needs', 435 Nature 417, 418 (May 2005)
[15] *See Hatfill v. New York Times Co.*, 488 F. Supp 2d 522 ; 2007 U.S. Lexis 7295 (E.D. Va. 2007).

1.1.1.1 United States

Congress responded promptly by enacting the USA Patriot Act of 2001, with the aim, (as is also apparent from its full official title) 'to deter and punish terrorist acts in the United States and around the world….'[16] The Act strengthened the criminal law in combat against terrorism, enhanced law enforcement in regards to the use of weapons of mass-destruction and introduced drastic investigatory tools and interrogative mechanisms. Severe penalties were prescribed for knowingly possessing (in certain circumstances), 'biological agents, toxins, or delivery systems', especially by certain restricted persons; enhanced domestic security was provided and assistance in enforcement of Criminal provisions was extended.[17]

In trying to define the 'non-definable', the Patriot Act provided (in amending the Fed. Criminal Code), in a very wide-embracing non-definitive manner that:

> 'international terrorism' includes activities 'that appear to be intended to affect the conduct of government by mass destruction' and 'domestic terrorism' includes criminal acts 'dangerous to human life, that appear to be intended to intimidate or coerce a civilian population, to influence government policy…., or to affect government conduct by mass destruction, assassination, or kidnapping'.

The Act provides jurisdiction over crimes committed at U.S. facilities abroad; neutralizes the statute of limitations for certain terrorism offenses; prescribes penalties for attempts and conspiracies, 'the same as those for terrorism offenses'.[18] It contains stringent measures for confiscation and seizure of property, enhanced surveillance procedures, money laundering counter measures, disclosure of suspicious bank-activities, etc.[19]

The USA Patriot Act 2001, in being enacted as a vigorous tool to combat world terrorism has extended and enhanced an already existing-substantial body of provisions relating specifically to biological weapons, namely *The Biological Weapons Anti-Terrorism Act of 1989*[20] (BWAT 1989) and *The Antiterrorism and Effective Death Penalty Act 1996*[21] (AEDPA 1996).

The Biological Weapons Anti-terrorism Act 1989 by implementing the 1972 Biological Weapons Convention and in compliance with it, provided, by amending the Criminal offences that:

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[16] *See* 'The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, USA Patriot Act (Public Law No. 107-56) enacted on October 24, 2001

[17] *See* Sections 103-105.

[18] *See* Sections 804; 809-811 of the Patriot Act.

[19] *See* Sections 106; 203; 209 of the Patriot Act.

[20] *See* The Biological Weapons Anti-Terrorism Act of 1989, Public law 101-298, signed May 22,1989.

[21] *See* The Antiterrorism and Effective Death Penalty Act 1996 (AEDPA), Pub.Law 104-132 signed April 24, 1996 (following the blast on the Federal building in Oklahoma City).

> Whoever knowingly develops, produces, stockpiles, transfers, acquires, retains, or possesses any biological agent, toxin, or delivery system for use as a weapon, or knowingly assists a foreign state or any organization to do so, – shall be fined … or imprisoned for life or any term of years, or both.[22]

With the aim not to restrict scientific research, the BWAT specifically proclaimed that**:** 'Nothing in this Act is intended to restrain or restrict peaceful scientific research or development.'[23] The Act clearly stated that the prohibition on using biological agents does not apply to uses 'for prophylactic, protective, or other peaceful purposes'. Violation of a prescribed prohibition is punishable by imprisonment from ten years to life imprisonment.[24]

In broadly defining the meaning of a 'biological agent', 'Toxin', 'Delivery system', and 'Vector',[25] the Act provided that any biological agent or toxin 'of a type or in a quantity that under the circumstances has no apparent justification for prophylactic, protective, or other peaceful purposes', may be seized and destroyed.

The Antiterrorism and Effective Death Penalty Act 1996 prescribed strict control of biological agents and authorized the Secretary of Health and Human Services (HHS) to regulate the possession and transfer of potentially hazardous biological agents, in order to prevent exposure to such agents and protect public health and safety. It strengthened penalties for threatening, attempting, or conspiring to use a biological agent as a weapon for mass-destruction. It extended the definition of 'biological weapons' by including engineered biological products, infectious substances and bioengineered components of a microorganism, virus or biological product. Also 'toxic material of plants, animals, viruses, fungi or infectious substances or a recombinant molecule that may be engineered as a result of biotechnology' were included under 'Biological Weapons Restrictions'.[26]

Aware of the potential hazards from biological agents, in stressing the importance of the precautionary principle, the AEDPA 1996 imposes on the Secretary the duty to establish and maintain, through regulations, 'a list of each biological agent that has the potential to pose a severe threat to public health and safety'. In determining whether to include an agent on the list, the Secretary shall consider:

> [T]he effect on human health from exposure to the agent; the degree of contagiousness of the agent and the methods by which the agent is transferred to humans; the availability and effectiveness of immunization to prevent and treatments for any illness resulting from infection by the agent; and any other criteria that the Secretary considers appropriate.

In deciding on all these the Secretary shall consult with scientific experts representing appropriate professional groups.[27] The Secretary shall, by regulations, prescribe

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[22] *See* Title 18 US inserted chapter 10, sections 175-178.
[23] *See* Sec. 2 of the BWAT 'Purpose and intent' and Sec.175 (a)&(b) Title 18 , chapter 10
[24] Extraterritorial Fed. Jurisdiction is afforded to such offenses, if committed by or against a national of the US.
[25] *See* Definitions, BWAT 1989
[26] *See* Section 511 (a-e) of the AEDPA 1996.
[27] *See* Section 511 (d)(1)(A)&(B) of the AEDPA 1996.

safety requirements and procedures for the transfer of biological listed agents and for the 'proper training and appropriate skills to handle such agents' and also for 'proper laboratory facilities to contain and dispose of such agents'. The Secretary shall ensure safeguards to prevent access to such agents for use in domestic and international terrorism or for any other criminal purpose and shall establish procedures 'to protect the public safety in the event of a transfer or potential transfer of a biological agent in violation of the safety procedures….'[28] In securing furtherance of scientific research and development, the act stipulates that measures shall be provided to ensure '[a]ppropriate availability of biological agents for research, education and other legitimate purposes'.[29]

Subsequently, with the aim to further '[i]mprove the Ability of the US to Prevent, Prepare for and Respond to Bioterrorism and other Health Emergencies' the U.S. congress enacted *The Public Health Security and Bioterrorism Preparedness & Response Act of 2002*.[30] In its operative wide-embracing manner the Act requires development and implementation of a coordinated strategy to be periodically reviewed and revised,, if needed. It shall include provisions for ensuring appropriate capacity to detect and respond effectively to bioterrorism and health emergencies (laboratory readiness; properly trained and equipped emergency personnel; health and safety measures for such personnel, etc.). Timely dissemination of relevant information to the public, via communications networks, is to be ensured as a safety measure. Invention, development and maintaining of medical countermeasures, is to be strongly encouraged.[31] 'Security should be provided for R&D of countermeasures, and for evaluation and production of new and emerging technologies against Bioterrorist attacks and other public health emergencies….'[32] 'Stockpiles of drugs, vaccines and other biological products, medical devices, and other supplies… appropriate and practicable [for health security]… in the event of a bioterrorist attack' should be maintained.[33]

In its wide spectrum of prescribed 'Enhanced Regulatory Control of Certain Biological Agents and Toxins', the Act stresses the necessity and importance of maintaining, by regulations, the 'list of each biological agent and each toxin that has the potential to pose a severe threat to public health and safety'.[34] It also repeats the same criteria as prescribed by the AEDPA 1996, with slight changes in the consultation process. The Act provides that the list is to be reviewed and republished biennially, or more often and revised as needed.[35] Standards and procedures for governing the possession and use of listed agents and toxins shall be established by

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[28] *See* Section 511 (e)(1)(A)&(B), (2)&(3) of the AEDPA 1996.
[29] *See* Section 511 (e)(4).
[30] *See* Public Law 107-188 107th Congress, June 12, 2002.
[31] *See* Subtitle A Section 101 & 2801 subsec. (a), 2(b)(A)(B)(C)(F)& (3).
[32] *See* Subtitle B, Section 121(a)(1) (2)(D) & Sections 124 -126.
[33] *See* Subtitle B, Section 121 (a)(1) Public Health Security &Bioterrorism Preparedness & Response Act 2002.
[34] *See* Sec 351A (a)(1)A of Public Health Service Act, Title III (42 USC 262 *et seq.*).
[35] Amending the Public Health Service Act (42 U.S.C. 262 *et seq.*), by inserting Sec. 351A (a)(2).

regulations.[36] Registration procedures shall ensure that persons seeking registration 'have a lawful purpose to possess, use, or transfer such agents and toxins'.[37] Information in regards to details and characterization of listed agents and toxins shall be required to facilitate their identification, including their source. A national database shall be maintained by the Secretary and is to include the names and locations of registered persons; the listed agents and toxins that such persons possess, use or transfer and information regarding their characterization.[38] A prompt notification is to be given to the relevant enforcement agencies in case of theft or loss of listed agents.[39] A registered person shall give prompt notification whenever a release of a listed agent or toxin has occurred outside of the bio-containment area of his facility. If such release poses a threat to public health or safety, the Secretary shall immediately notify the relevant authorities (local, State or Federal) and the public. Compliance with these requirements shall be ensured by the Secretary, in consultation with the Attorney General, as part of the registration system.'[40] Requirements and limitations for access to listed agents should be imposed by regulations in accordance with stringent stipulations by law.[41] Upon receiving the names and other identifying information the Attorney General shall, identify 'whether the individuals involved are within any of the [suspected by the act] categories', and shall 'promptly use criminal immigration, national security, and other electronic databases that are available to the Federal Government and are appropriate for such purpose'.[42]

Exemptions are prescribed for clinical or diagnostic laboratories by providing that:

> Regulations under subsec (a) and (b) shall exempt clinical or diagnostic laboratories and other persons who possess, use, or transfer listed agents or toxins that are contained in specimens presented for diagnosis, verification, or proficiency testing, provided that (A) the identification of such agents or toxins is reported…; and (B) such agents or toxins are transferred or destroyed in a manner set forth by the Secretary by regulation.[43]

Products shall also be exempted if the 'products are, bear, or contain listed agents or toxins and are cleared, approved, licensed, or registered under any of the Acts.'[44] The Secretary shall have the authority to inspect persons subject to the regulations…to ensure compliance with these regulations.'[45]

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[36] *See* Section 351A (id)(c) of Public Health Service Act.
[37] *See* Section 351A (d)(1)(2) & (e) of Public Health Service Act.
[38] *See* Section 351A (d)(1)(2).
[39] *See* Section 351A (e)(9).
[40] *See* Section 351A(e)(1).
[41] *See* Section 351A(e)(2).
[42] *See* also 18 U.S.C. Section 2331 and 50 U.S.C. Section 1801.
[43] See Sec. 351A (g)(1)(a)(b).
[44] *See*, Sec 351 A(g) & sec. 351(1)(2) A of the Act under ' Exemptions':
[45] See sec. 351 A (f)

An additional Act, the *Project Bioshield Act (2003)*, was enacted with the aim to protect public health from biological terror. The Act provides authority for use of certain procedures regarding biomedical countermeasure research and development activities in stating that the Secretary may conduct and support such activities if these concern '*qualified countermeasures'* (a priority countermeasure that affects national security). The Secretary may require, in any grant or agreement 'with respect to a bio-containment laboratory or other related or ancillary specialized research facility…necessary for …performing, administering or supporting qualified countermeasure R&D', that the facility of the recipient of such a grant 'shall be available as needed to the Secretary, to respond to public health emergencies affecting national security needs.'[46]

It is to mention that on January 31, 2007, the U.S. President issued a Directive[47] drawing upon the 'potential of the scientific community in the public and private sectors to address [the] medical countermeasure requirements relating to CBRN [chemical, biological radioactive and nuclear] threats'. These have to 'balance the immediate need to provide a capability to mitigate the most catastrophic, current CBRN threats, with long-term requirements to develop more flexible broader spectrum countermeasures, to address future threats'.

1.1.1.2 United Kingdom

A special *Anti-terrorism, Crime and Security Act 2001 (ATCSA)*[48] was enacted amending the existing *Biological Weapons Act 1974 (BWA 1974)*[49] which prescribed 'restrictions on development of certain 'biological agents, 'toxins' and 'biological weapons' in providing that:

> No person shall develop, produce, stockpile, acquire or retain –
>
> (a) any biological agent or toxin of a type and in a quantity that has no justification for prophylactic, protective or other peaceful purposes; or
>
> (b) any weapon, equipment or means of delivery designed to use biological agents or toxins for hostile purposes or in armed conflict.[50]

In consequence of the amendment, a new inserted Section 1(1A) extends the spectrum of deterrence by prohibiting transfer or entering into an agreement for transfer, or making arrangements for transfer of any biological agent or toxin, (by any person to another person or by others), 'if the biological agent or toxin is likely to be kept or used otherwise than for prophylactic, protective or other peaceful purposes and he knows or has reason to believe that that is the case'.[51] The BWA 1974 provides that: **'**Any person contravening this section shall be guilty of an offence and shall, on con-

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[46] *See,* Sec. 319F -1(a-h) of the Project BioShield Act of 2003

[47] Homeland Security Presidential Directive/HSPD-18, available at <http://www.whitehouse.gov/news/releases/2007/02/20070207-2.html> (as of May 2008).

[48] *See* Ch. 24 Sec.43 & Sec 50. Eng. BWA 1974.

[49] *See* Biological Weapons Act 1974, (BWA 1974) Ch. 6. Sec.1 Eng.

[50] *See* Section 1(1) of the Biological Weapons Act 1974.

[51] *See* Section 1 (1A)(1).

viction upon indictment, be liable to imprisonment for life.'[52] 'Biological agent' and 'Toxin', are defined as 'any microbial or other biological agent or toxin – whatever its origin or method of production'.[53] The range of prohibited punishable acts was extended by including 'attempt, preparation, conspiracy, assistance, promotion, persuasion, and other acts and extraterritorial jurisdiction applies 'to acts done outside the UK, but only if they are done by a UK person'.[54]

The *Anti-Terrorism, Crime and Security Act (ATCSA)* in dealing with 'weapons of mass-destruction' prohibits any conduct of 'aiding, abetting counseling procuring or inciting a person who is not a UK person 'to do a relevant act' outside the UK is an offence punishable by life imprisonment.[55] It is not necessary to have any particular person in mind as the person in whom he intends to induce the belief in question'.[56]

The Health and Safety at Work etc. Act 1974[57] aims to protect health, safety and welfare in connection with work, and 'Control of Dangerous Substances and Certain Emissions into the Atmosphere'. It prescribes general duties for employers and self-employed persons, of such undertakings, towards persons other than their employees, thus extending protection to the wider public.

> It shall be the duty of every employer to conduct his undertaking in such way as to ensure, so far as is reasonably practicable… that he and other persons (not his employees) who may be affected [by his conduct with dangerous substances…] are not thereby exposed to risks to their health or safety….[58]

In such cases it shall be his duty to give, to persons who may be affected, 'the prescribed information about such aspects of the way in which he conducts his undertaking as might affect their health or safety.'[59]

1.1.1.3 European Union

A communication from the EC to the Council and EP, was issued on November 29, 2001, in regards to 'Civil Protection', stating that in consequence of the unprecedented outraging terrorist attacks of September 11, 2001 in the USA, the European community and its individual members are 'prompted to enhance their preparedness and readiness to prevent or mitigate the impact of such reoccurring terrorist attacks'.[60] All the relevant bodies were asked to prepare a program designed for

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[52] *See* Section 1 (1A)(3) of the BWA 1974.
[53] *See* Section 1 (1A(2)of BWA 1974.
[54] *See* Section 1A of BWA 1974.
[55] *See* Anti-terrorism, Crime and Security Act 2001 (Ch. 24., Section 50 Subsec. 4 + Subsec. 7 Eng.).
[56] *See* Anti-terrorism, Crime and Security Act 2001, Ch. 24, Section 115 (Eng.) Sections 113+114 supplementary).
[57] The Health and Safety at Work etc. Act 1974, Ch. 37.Section 3 Eng.
[58] *See*.Section 3(1) of The Health and Safety at Work… Act 1974 (Ch. 37) Eng.
[59] *See* Section 3(1)(2) & 3(3) of the Health and Safety at Work…Act 1974.
[60] *See* Communication from the Commission to the Council and the European Parliament – Civil Protection – State of Preventive Alert against Possible Emergencies of November 29, 2001, COM (2001) 707 final.

improving cooperation between the Member States 'on the evaluation of risks, alerts, intervention,… storage… detection and identification of infectious and toxic agents as well as the prevention and treatment of chemical and biological attacks'. Appointment of a European coordinator for civil protection measures was considered as part of the program. It was stressed that in order to enhance Europe's capacity 'to respond to emergencies arising from biological and chemical terrorist attacks,… a mobilization of its research and technology development potential…', is needed. A joint evaluation of the current knowledge and research capacities should be undertaken.

An inventory on ongoing bio-defence research should be compiled.[61] A series of strategies and a 'road map' were prepared for making appropriate arrangements for the life sciences. The importance of scientific research was stressed and the commitment to encourage and advance it was underlined. However, it also emphasized that there is an obligation to prevent exploitation of the positive results of this research for malicious purposes.

Within the new Sixth Framework Program for R&D (2002 – 2006), the Joint Center for Research (JRC) was to initiate:

> a bio-response working group….comprising state-of- the- art laboratories…and world experts…to detect and identify relevant transgenic strains…[for] addressing biological attacks to the food chain… to determine the new scientific issues and questions related to bioterrorism and… to assess the technological, social, economic and psychological vulnerabilities of [the] modern societies with regard to possible terrorist attacks.[62]

The *Council Regulation setting up a Community Regime for the control of exports of dual-use items and technology*[63]**,** aimed to provide effective control on export of dual use items, has established (in its Annex 1), the common list of dual use items implementing the internationally agreed dual use controls including (among others) the Wassenaar Arrangement and the Australia Group to be updated in conformity with the relevant obligations and commitments.[64]

1.1.1.4 Conflicts and Controversies in a climate of Uncertainties.

Taking as an example the profusion of existing and amended legal provisions, in the randomly surveyed communities, it should be known that in recent years serious efforts have been made by legislators to control the use and prevent misuse of biological agents. It is to stress that the most severe punishment has been prescribed for malicious uses of biological agents. However, unfortunately it should be remembered that even the severest penal sanction is neither totally deterrent nor preventive. It definitely demonstrates public aversion to such deeds, as also to lesser vio-

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[61] *See id.*, at para 4.1.
[62] *See id.*, para. 4.2.
[63] EC Regulation No. 1334/2000 of 22 June 2000, setting up a Community Regime for the control of exports of dual-use items and technology, as amended by EC Regulation 394/2006 of February 27, 2006.
[64] *See id.*, Article 1-5.

lent crimes, but it would be naïve to believe that a severe penal sanction is 'the tool' for preventing, diverting or deterring monstrosities.

In a *post-factum* case of employing biological weapons for mass-destruction, enforcement of the penal sanction is entirely abortive, especially in the present trend of suicidal attacks. So while the civilized world is terrified by international terrorism and horrified by 'clear and present' dangers stemming from the dual characteristics of certain biological agents – the main concern is to be given to precautionary, preventive, security and safety measures, at their source, to be provided and observed by relevant bodies. This alone is not enough. Judged by the surveyed provisions it shall be said that there is enough legal authority for regulating research in the field of new biotechnology at its source. It may also be said that in many communities there already exists a regulatory framework, providing adequate precautionary bio-safety and bio-security measures for preventing or minimizing recklessness and possible destructive uses of dangerous biological agents. However, as already said, the unprecedented race and advances in biological, biomedical research and technological development, in comparison with the conventional slow pace of the legislative process, make it impossible for the authorized bodies to embrace all the advances, even if speeded up in consequence of recent events. The same is to be said as to updating regulatory implementation regimes and enforcement mechanisms. Thus, it is important to emphasize that awareness and alertness of each individual scientist in dealing with dangerous biological agents and the willingness of the entire scientific community for recognizing the seriousness and feasibility of the possible misuse of biological agents and toxins – is very instrumental. Knowledge, understanding and awareness of the general public is also an important factor in the general effort to prevent, minimize or combat bio-terrorism.

However, 'negative feedback' is a known phenomenon. Human nature does not respond to warnings, be it even against the most horrifying atrocities, as were witnessed during WWII. There is apparently an innate human tendency to ignore dangers and to see those as remote and theoretical.[65]

Attention is drawn here to the recently announced innovation by a group of scientists in Maryland. The public was informed that they succeeded 'to build from scratch an entire microbial chromosome, a loop of *synthetic DNA*, carrying all the instructions that a simple cell needs to live and reproduce'.[66] Craig Venter was quoted saying that 'the goal is to design novel microbes whose handcrafted genomes endow them with the ability to produce useful chemicals, including renewable synthetic fuels that could substitute for oil'! This definitely stresses the beneficial application of the revolutionary invention, but some of his peers oppose the use of synthetic DNA pronouncing a warning that 'without better oversight of the fledgling field, synthetic biology is more likely to lead to the creation of potent biological weapons and runaway microbes that could wreak environmental

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[65] 'A man is doomed to destroy himself and at the same time to refuse to believe he is doing so', *See* A. MARTIN, The Last Generation. The end of survival? (1975).

[66] GIBSON ET AL., *supra* note 12; *see also* WEISS, Md Scientists Build Bacterial Chromosome, WASHINGTON POST, January 24, 2008, p. A04.

havoc'.[67] A Montreal-based group even called for a moratorium on the release and commercialization of synthetic organisms, pending further public debate'.[68]

Attention is drawn also to the reported efforts to re-create by reverse engineering, old dangerous viruses including the most deadly 1918 flu-virus, or to produce a new type of virus or vaccine, by another new technology. In giving justification to such dealings, the public is informed that these advances in science may give a rapid response to some of the newly emerging dangerous infectious diseases and protect the public from the potentially devastating consequences of a pandemic disease outbreak (*e.g.*, EBOLA and SARS).[69] But simultaneously there are also warnings! Such processes pose great unknown risks and must be done in containment in a strictly safe manner, to avoid repetitious disasters!

In addition, the questions are:

1. Should the relevant scientist undertake and proceed in such experimentations just upon his own integrity?
2. Will the public seriously respond to the challenges on these vital controversial issues with their economic, social and moral implications?
3. Should the racing scientist, on his track to future inventions, be the one and only decision-maker in the name of 'public good'?

Attention is drawn to another controversial case relating to a public warning, which was recently discussed in *Steven J. Hatfill v. The New York Times Co.*,[70] an offshoot case of the 2001 'anthrax disaster'. In describing a series of events preceding the outrageous letters containing anthrax spores, the judgment reveals that in the mid-ninety's there were warnings about potential dangers in dealing with anthrax. This was an action for 'defamation', commenced in 2004 against the NY Times, following publication in 2002 of a series of columns describing failures of the FBI in its investigation of the anthrax letters. The plaintiff alleged that the columns 'falsely implicate[d] him in the anthrax mailings… tending to incriminate him….'[71] In summing up the merits of the case, the court emphasized that the plaintiff had then (mid 1990s) an established reputation in the field of infectious diseases and bioterrorism research and had a security clearance to work with dangerous pathogens including anthrax. The court stressed that the plaintiff '

> took it upon himself to publicize the threat posed to the United States from biological weapons. … In August 1997, [he] provided an interview to a *Washington Times* columnist on the subject of bioterrorism and specifically on the threat of anthrax being used as a weapon…. not[ing] that the US health care system was ill prepared for such

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[67] *See* WEISS, Md Scientists Build Bacterial Chromosome, WASHINGTON POST, January 24, 2008, p. A04.

[68] *Id.*

[69] *See* OSTERHOLM, A Weapon the World Needs, 435 Nature 417, 418 (May 2005) (it is said that the genome of the Spanish flu virus which was reverse engineered has been published, and thus also an article that describes how to make a virus out of a genome map).

[70] *Hatfill v. New York Times Co.*, 488 F. Supp. 2d 522, 2007 U.S. Lexis 7295 (E.D. Va. 2007).

[71] *Id.*, at 524.

> an attack. … Plaintiff provided an interview … about the risks of a biological attack and how an anthrax attack could be orchestrated.[72]

Hatfill, who was considered an experts in the area of biological weapons and agents by government officials and the scientific community alike, propagated increased government vigilance to combat bioterrorism and in 1999 co-authored an article which 'urged the public health community to step up efforts to be prepared for a chemical or biological attack.'[73]

In determining the plaintiff's status, based on the mentioned facts, whether he was a private or a public figure or a public official, the court concluded that he qualifies as a 'public official', notwithstanding the plaintiff's claim that he was a private person, 'involuntary dragged into the controversial situation'.[74] The court stressed the fact that the public had an interest in the plaintiff, considering his qualifications, the highly sensitive nature of his work and its importance to national defense. In describing him as 'a vocal critic of the government's level of preparedness for a bioterrorist attack' and in reference to his lectures, writings, participation on panels, and interviews, as well as his own resume as an expert in the field of biological weaponry, the court concluded: 'The Plaintiff voluntarily assumed a role of special prominence in the public debate over the nation's preparedness for a biological attack, and indeed sought to influence government policy. The plaintiff should have foreseen that by his activities he 'was likely to invite [public] attention and scrutiny'.[75]

Moreover, the relevant questions are: Did his warning really draw attention of the public? Did anybody draw consequences from their contents? Assuming that it was a warning by a recognized expert expressed in classified circles but also on public media, did the decision makers act upon it, and did it raise public concern?

Another offshoot of the anthrax letters was the controversial case of '*ciprofloxacin*'('*Cipro).*[76] It was an example of a controversial issue in a climate of uncertainty that had to be delicately balanced between conflicting interests. On one hand there was the right of a patentee to retain his monopoly on a patented drug, on the other hand was the dilemma whether to enforce or not to enforce government's statutory right to override patent rights in cases of emergency, and its duty to protect public health and safety, which usually is to prevail, provided it is executed stringently.

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[72] *Id.*, at 524-525.

[73] *Id.*, at 525.

[74] As a public official the plaintiff could recover compensation only if the Defendant acted with actual malice in publishing the said columns. Actual malice must be established by clear and convincing evidence. For a private person , the burden of proof is much lesser. *See supra* note 70.

[75] *Id.*

[76] *See* RESNIK/DEVILLE, Bioterrorism and Patent Rights: 'Compulsory Licensure' and the Case of Cipro, American Journal of Bioethics. 2002 Summer.

An additional controversial issue that recently revisited court was discussed in *Vietnam Assoc. for victims of 'Agent Orange' & others v. Dow Chemical Co.*[77]

Plaintiffs, Vietnamese nationals, filed suit against defendants, manufacturers of herbicides, for allegedly causing wrongful death, severe bodily injuries (such as: birth defects, breast and lung cancer, ovarian tumors) and other health problems in result of their exposure to dioxin during the United State's use of herbicides in the Vietnam War. The plaintiffs alleged violation of international and domestic law in fulfilling the military's demand for herbicides. They did not allege that the government intended to harm human beings through its use of *Agent Orange.*

In reviewing the history of the herbicide operation that was employed by the US military forces in Vietnam, court relied on the argument by the Defense ministry that 'one of the most difficult problems of military operations in South Vietnam' was 'the inability to observe the enemy in the dense forest and jungle'. It was stressed that the army was instructed to 'carefully select crop destruction targets… in areas remote from population… [and] only of military significance'. The US government claimed that the 1925 Geneva Protocol does not ban the use of some herbicides in warfare, since 'chemical herbicides which were unknown in 1925, could not be included within the scope of the prohibitions'. In reviewing the justicibility of the herbicide program the judges emphasized that the operations became a matter of scientific controversy almost from their inception, but the herbicide program was continued because of 'substantial military benefit'. Court stressed that in April 1970 some components of the herbicide were banned from most U.S domestic uses on the basis of evidence of its 'possible teratogenicity'. On April 15, 1970, DOD suspended military use of *Agent Orange* upon evidence of toxicity of the dioxin component. In January 1971, the last spray mission took place.

After a lengthy discussion on a diversity of complicated legal issues, the Court concluded that the herbicide spraying complained of did not constitute a war crime in pre-1975. Since '*Agent Orange* was intended for defoliation and destruction of crops and not as a poison targeting human populations, its use did not violate the international norms….' The court stressed that: '[t]he concept of military necessity or proportionality is a well accepted international norm governing the conduct of war. There is nothing in the UN Charter outlawing the use of herbicides in Vietnam….'[78]

The court observed: 'Norms that depend on modifiers such as disproportionate or unnecessary, invite case-by-case balancing of competing interests and black-letter rules become vague and easily manipulated.'[79]

One wonders whether '*Agent Orange*' operation would go on if the US government would have timely applied the 'precautionary principle' while the climate was

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[77] *Vietnam Assoc. for Victims of 'Agent Orange' et al. v. Dow Chemical Co. et al.* 517 F.3d 104, 2008 US App. Lexis 3737 (2nd Cir. 2008).

[78] *Id.*

[79] *Id.*

of uncertainty which unfortunately became later, a certainty!. One wonders what lesson will be learned from this recent court case?![80]

2. Conclusion

All these are very complicated issues, and no clear-cut answer can easily be provided. The 'delicate balance' to be found between conflicting interests is not exactly 'delicate' in many of these difficult controversial issues. Especially difficult is to find an adequate balance in conflicts between human rights and national or international security. Experienced in adjudication one may dare to say that there is a general universal 'feel and touch ' in justice, but moral and ethical attitudes that are part of 'justice', differ from nation to nation and from person to person, embracing a diversity of considerations, justified by one party and sometimes condemned by another. Thus different vital decisions are reached, also in the adjudicative processes.

Life is full of dangers, most of which are man-created. As already mentioned, science and new technologies enrich humanity, but along with its enrichment, some of the innovative scientific findings or sophisticated technologies often seriously threaten humanity. In extreme cases, there is a posed danger to the well-being of humanity and its survival. Science in its dual capabilities, on the one hand as the benefactor of humanity, and on its other hand as the cause for threats on its survival, is under a heavy responsibility to balance between those capabilities, first within its own boundaries and later in cooperation with other relevant disciplines.

It shall be remembered that in the dynamics of daily life many people are reckless, careless or negligent in performing their chores and legal responsibilities. Some examples thereof are a reckless security guard not identifying a terrorist, a driver recklessly speeding or driving on the wrong side of the road, a medical doctor or a dentist who is careless in performing its duties. Without undermining the severity of such cases, it is to stress that the injury in most of these cases is limited to a certain individual or a group of individuals. But in cases of careless, negligent or wrongful dealing with lethal biological agents, letting those 'escape' or be reached by terrorist hands, there is a danger of mass-destruction. Many of the dangerous biological agents are lethal or can genetically be engineered into lethality.

It is usually claimed that all advances in science and technology are for the 'Public's Good', but it is very seldom that the public is consulted or asked to decide on its own good. Although policymakers are supposed to act and represent the public interest, but in practicality this is rarely feasible, especially where there is no normative framework and the issue requires acquaintance with a sophisticated technology in a climate of uncertainties.

Raising awareness and serious concern of laboratory directors, scientists and students in regard to the already existing legal requirements in light of the current bio-terrorist threats, is one of the immediate goals to be undertaken by relevant

[80] *See also J. Doe, et al. v. L.W. Sullivan Secretary of Health and Human Services*, 291 U.S App. D.C. 11; 938 F.2d.1370, 1991 U.S App. Lexis 14984 (D.C. Cir. 1991) (Ruth Ginsberg).

authorities. The 'precautionary principle' is to be applied, however any normative framework for preventing, decreasing or minimizing any hostile use or misuse must provide for the undisturbed continuation of scientific research and possibilities of scientific publications, provided these do not diminish the efforts for protecting national security and public health and safety.

It is to think and provide answers and recommendations as to:

1. How can scientific information on controversial issues be framed and communicated by the media, to be best absorbed and seriously received by policy makers, scientists and the general public?
2. What mechanisms can be applied for mediating between expert advice and warnings on risks and dangers and the common tendency of the individual to distance himself from threats and warnings?
3. What criteria shall be applied for resolving conflict of interests and controversies between the utilitarian-economic approach to scientific research, especially now in the field of new biotechnology and other approaches such as political; ethical, moral; social or religious?

Most of the above compiled laws state clearly that 'nothing… is intended to restrain or restrict peaceful scientific R&D' and prohibitions on using biological agents do not apply to uses 'for prophylactic, protective, or other peaceful purposes'. However, it is to bear in mind that in case of conflict, it is only via the adjudicative processes that such rights and exemptions can be enforced. Thus, it is important to observe that many of the clauses speak in a very amorphous language, subjecting it to judicial interpretation of conduct or terms that partly have never been defined.

Although trained in deciding on whatever issue that seeks adjudication, in the rapidly changing global world and highly sophisticated developments in the life sciences, there is a growing gap between scientific expertise and judicial knowledge. There is a need for cross-ventilation between all the relevant disciplines which Professor Straus is practicing in his daily chores.

No man is an island. (John Donne, Meditations XVII)

Biotechnological Patenting and Innovation*

Michael Blakeney

1. Introduction

Professor Straus' pioneering work on patenting and biotechnological innovation has informed patent policy in the World Intellectual Property Organization and in developing countries since the 1980s.[1] This paper examines the phenomenon of patenting as a strategy not so much to protect innovations but as a means of securing bargaining chips for access to others' proprietary technologies. It traces the consequential development of patent thickets and patent pools and notes their impact as obstacles to innovation and the associated response of competition law. Biotechnological patenting is taken as a case study of these developments.

The conventional wisdom is that one of the principal justifications for patent protection is that such protection is required as an incentive to innovation, investment and technology transfer. This wisdom is reflected in Article 7 of the TRIPS Agreement, which states that:

> The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge …

However, even in industrialized countries, the evidence that patenting is a prerequisite for or a facilitator of economic development is equivocal. In his celebrated 1959 study of the patent system in the United States, Fritz Machlup concluded that 'no economist on the basis of present knowledge, could possibly state with certainty that the patent system, as it now operates, confers a net benefit or a net loss upon society'[2]. Since that time a number of empirical studies have been undertaken to ascertain the industrial significance of patent protection. In his celebrated 1971 study, Firestone found that competition was reported by US firms as the principal factor influencing R&D expenditures.[3] More recently, the UK Commission on Intellectual Property Rights (CIPR) in its report *Integrating Intellectual Property Rights and*

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* Published in 3 BioScience Law Review 95 [2006/2007].

1 *See* STRAUS, Industrial Property Protection of Biotechnological Inventions (1985); STRAUS, Plant Biotechnology, Industrial Property and Plant Genetic Resources, Intellectual Property in Asia and the Pacific 21, 41 (1988); STRAUS, The relationship between plant variety protection and patent protection for biotechnological inventions from an international viewpoint, 18 IIC 723 (1987).

2 MACHLUP, An Economic Review of the Patent System, Patent Studies 15, Subcommittee on Patents, Trademarks and Copyright of the U.S. Senate Judiciary Committee, 85th Congress, 2nd Sess. 79 (1959).

3 FIRESTONE, Economic Implications of Patents (1971).

Development Policy[4] noted the complexity of evaluating the available evidence on the impact of intellectual property rights regimes on developing, or developed countries. It concluded that 'in most low income countries, with a weak scientific and technological infrastructure, IP protection at the levels mandated by TRIPS is not a significant determinant of growth'. Keith Maskus suggests that the literature discussing the extent to which stronger intellectual property rights influence foreign investment, licensing behavior and the transfer of technology can reach only tentative conclusions, because of weaknesses in data or methodology.[5]

In a study published in 1986, Edwin Mansfield inquired among a random sample of 100 firms from 12 industries in the USA, about the proportion of their inventions which were introduced between 1981 and 1983, which would not have been commercially developed if patent protection had not been available.[6] He discovered that there were sectoral differences in the attitude to intellectual property protection. In the pharmaceutical and chemical industries patent protection was considered essential for the commercialization of about one-third of the inventions. In the petroleum, machinery and fabricated metal products industries the proportion was between one-tenth and one-fifth. Mansfield found industrial property protection to be considered of little significance in the electrical, office equipment, motor vehicle, instrument, primary metals, rubber and textile industries. Despite the misgivings of Maskus about the methodological limitations of such studies, it is now agreed that there are sectoral differences in the significance of patenting for innovation.

However another interesting observation in Mansfield's study was that even the firms in industries where patenting was not considered to be essential, reported that over 60 percent of patentable inventions were patented.

2. Biotechnological Patenting

Biotechnological research has addressed the development and provision of new forms of healthcare involving, among other things, medical genetic testing, pharmacogenetics, gene therapy, and the use of therapeutic proteins or stem cells. It has also addressed the development of new plant types, which have more efficient growing capacities (*e.g.* disease resistance, early ripening, salt and aridity tolerance) or enhanced nutritional value. The potential subject matter of biotechnology patents are: methods of gene research; genetic material in its natural state, including DNA, RNA, genes and chromosomes; isolated genetic materials, including gene fragments such as single nucleotide polymorphisms (SNPs), expressed sequence tags (ESTs), and other gene fragments encoding important regions of proteins; and genetic products produced by the use of genetic materials, including proteins, nucleic acid probes, nucleic acid constructs such as vectors and plasmids, and anti-sense DNA.

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[4] CIPR, Integrating Intellectual Property Rights and Development Policy (2002).

[5] MASKUS, Transfer Of Technology And Technological Capacity Building (2003) available at <http://www.iprsonline.org/unctadictsd/bellagio/docs/Maskus_Bellagio2.pdf> (as of March 2008).

[6] MANSFIELD, Patents and Innovation: An empirical Study 1986 Management Science 173.

Biotechnological patenting has raised a number of concerns. First, questions have been raised about the patentability of genetic materials and technologies, whether the identification of a gene or other genetic material is an invention rather than a discovery and whether genetic materials are novel and whether their identification involves an inventive step and whether broad claims satisfy the test of industrial applicability. Additionally there is the over-arching question of the ethics of biotechnological patenting.

Studies of the incidence of patenting in the USA trace a gradual increase from the period 1976-1996, when the total number of patent applications in the U.S. grew at an average annual rate of 1.8 percent to the period 1986-1996, when patenting grew at 3.5 percent annually.[7] This growth is attributed to the pro-patent shift associated particularly with the establishment of the specialized Court of Appeals for the Federal Circuit.[8] This growth was particularly rapid in high tech industries, for example, 9.3% in biotechnology, 11.0% in semiconductors and 11.2% in software.[9]

A simplistic application of the incentive thesis may suggest that this growth of patenting is a reflection of the growth of innovation. However, a qualitative analysis of these patents might suggest otherwise. The breadth of the patents which are granted has important implications for innovation. Broad patent grants may be justifiable to permit inventors to appropriate returns on fundamental research, by receiving some of the value of later commercial applications. On the other hand, broad patent grants may deter firms from engaging in research in the area of the patented invention, and from searching for improvements in the patented invention.[10]

It has been suggested that broad patents in the biotechnology field may have greater potential to impede innovation than in other industries. For example, 'molecular modification' is a common practice in the pharmaceutical industry, but it is suggested that it is much more difficult to 'design around' treatments that depend on a particular gene sequence or gene fragment.[11]

For example, patents have been granted over Expressed Sequence Tags ('ESTs') which are fragments of DNA which can be used as tools to search for full-length genes. A typical EST is 400 to 500 nucleotides in length compared with a typical gene of 2,000 to 25,000 nucleotides in length. Thus, a number of ESTs may be patented on the same gene. If a researcher wishes to use the full-length gene, he would first need to obtain a license from the owners of the EST patents.[12]

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[7] NOEL/SCHANKERMAN, Strategic Patenting and Software Innovation, CEP Discussion Paper No. 740 (2006), available at <http://sticerd.lse.ac.uk/dps/ei/EI43.pdf> (as of March 2008).

[8] JAFFE/LERNER, Innovation and Its Discontents (2004).

[9] HALL/ZIEDONIS, The Patent Paradox Revisited: An Empirical Study of Patenting in the Semiconductor Industry, 1979-1995 32 RAND Journal of Economics 101 (2001).

[10] MAZZOLENI/NELSON, The Benefits and Costs of Strong Patent Protection: A Contribution to the Current Debate, 27 Research Policy 273, 275 (1998).

[11] LIPTON, Biopharmaceuticals: The Patent System and Incentives for Innovation, text at note 233, available at <http://leda.law.harvard.edu/leda/data/641/Lipton.html#fnB234> (as of March 2008), citing THOMAS *et al.*, Shares in the Human Genome – the Future of Patenting DNA, 20 Nature Biotechnology 1185 (2002).

[12] HOLMAN/MUNZER, Intellectual Property Rights in Genes and Gene Fragments: A Registration Solution for Expressed Sequence Tags, 85 Iowa L. Rev. 735, 764 (2000).

3. Impact of Biotechnological Patenting on Research

Biotechnological research may be upstream in the sense of basic research or downstream in the sense of developing products and research tools. The impact of biotechnological patenting will have different impacts in the research continuum. It has been noted that start-up biotechnology firms may need patents on their upstream discoveries in order to attract investors, whereas for pharmaceutical companies patents are needed not to raise capital but to ensure effective commercial exploitation of their products.[13]

A critical question in the field of biotechnological patenting is whether the growth of patenting inhibits research. The OECD has lamented the 'conspicuous absence of rigorous economic studies' that explore the impact of gene patents on research.'[14] The Report of the OECD Working Party on Biotechnology identified a number of issues concerning the possible adverse impact of gene patents on research, including blocking patents or overly broad patents; increases in secrecy and a slower pace of research; increased research and transaction costs; and increased litigation involving public research organizations.[15]

A particular problem in the field of biotechnological patenting is the grant of over-broad patents, which can chill the vigor of research and innovation because of concerns about infringement, or because downstream inventors are obliged to seek licenses from upstream inventors. The main impact of over-broad patenting upon research is identified in the area of research tools. In biotechnology, patentable research tools may include: (i) research techniques such as the Cohen–Boyer techniques (for gene-splicing) and the polymerase chain reaction (PCR) methodology (for DNA amplification); (ii) research products such as Taq polymerase (used in PCR) and restriction enzymes (used in cloning), combinatorial chemistry libraries; and (iii) genetic materials, cell lines, monoclonal antibodies, reagents, animal models, growth factors, drugs and drug targets, clones and cloning tools, methods, laboratory equipment and machines, databases and computer software and genetic materials that are targeted in research. For example, this includes genes for receptor proteins used in designing new drugs or vaccines, expressed sequence tags (ESTs) and single nucleotide polymorphisms (SNPs), which can be targets of research or used to target other genetic materials.[16] The most important research tools are 'fundamental research platforms that open up new and uncharted areas of investigation'.[17] In the hands of a single patentee, these could sterilize disparate areas of

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[13] AUSTRALIAN LAW REFORM COMMISSION (ALRC), Genes and Ingenuity: Gene Patenting and Human Health (ALRC 99), para. 17 (2004), available at <http://www.austlii.edu.au/au/other/alrc/publications/reports/99/index.html> (as of March 2008).

[14] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), Genetic Inventions, Intellectual Property Rights and Licensing Practices: Evidence and Policies 82 (2002).

[15] *Id.* at 12–15.

[16] *See* NATIONAL INSTITUTES OF HEALTH – WORKING GROUP ON RESEARCH TOOLS, Report 1998, available at <http://www.nih.gov/news/researchtools/index.htm> (as of March 2008).

[17] *See* RAI, Genome Patents: A Case Study in Patenting Research Tools, 77 Academic Medicine 1368, 1369 (2002).

research. For example, Barton suggests that patents on some foundational research tools can 'pre-empt large areas of medical research and lay down a legal barrier to the development of a broad category of products'.[18] Patented stem cell lines are an example of fundamental research platforms, which have a significant impact upon research trajectories.

4. Licensing

Access to proprietary research tools will depend upon the availability and terms of licenses granted by patent holders to researchers. The OECD Report suggested that research tool patents on occasion make 'collaboration and communication with other researchers more difficult'.[19] This may be through the imposition of high license fees or because of the transaction costs and administrative delays and burdens in negotiating licenses. Eisenberg observed that 'there seems to be a widely-shared perception that negotiations over the transfer of proprietary research tools present a considerable and growing obstacle to progress in biochemical research and product development'.[20]

On occasion, license agreements for the use of research tools may contain reach-through provisions, which give the patent holder rights over discoveries made by licensed researchers who utilize the research tools. For example, licenses of the Bio-Rad gun, used by researchers to shoot DNA coated pellets into cells, required licensees to make commercial applications of their research available to Bio-Rad. Such reach-through rights may prejudice researchers' later technology transfer and commercialization prospects, as potential commercial partners are likely to demand that intellectual property be unencumbered by competing interests.

It is not uncommon for patent holders to charge lower fees for academic researchers than for commercial researchers. However, these lower prices may carry a number of ancillary obligations. For example, genetic materials may be made available to academic researchers on condition that they undertake not to seek IP rights over these materials or derivatives. The licensor may seek priority in the commercial exploitation of research products and may seek to control the publication of research results.

The Nuffield Council on Bioethics in a 2002 report indicated that there was insufficient evidence to assess any negative effects on research the patenting of research tools is producing.[21] A review conducted in 2003 for the United Kingdom Department of Health, concluded the evidence was limited and anecdotal.[22]

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[18] BARTON, Research Tool Patents: Issues for Health in the Developing World, 80 Bulletin of the World Health Organization 121, 122 (2002).

[19] OECD, *supra* note 14, at 14.

[20] EISENBERG, Bargaining over the Transfer of Proprietary Research Tools: Is the Market Failing or Emerging? in: DREYFUSS/ZIMMERMAN/FIRST (eds.), Expanding the Boundaries of Intellectual Property: Innovation Policy for the Knowledge Society, 223, 225 (2001).

[21] NUFFIELD COUNCIL ON BIOETHICS, The Ethics of Patenting DNA, para. 5.40 (2002).

[22] CORNISH/LLEWELYN/ADCOCK, Intellectual Property Rights (IPRs) and Genetics (2003).

The Australian Law Reform Commission noted that 'the current position may change, particularly if patent holders become more active in enforcing patent rights'.[23]

5. Patent Thickets

The increase in patenting in these industries has led to the development of 'patent thickets' which are defined as an overlapping set of patent rights requiring that those seeking to commercialize new technology obtain licenses from multiple patentees. The U.S. Federal Trade Commission in its 2003 hearings on the interface between patent policy and competition policy[24] noted in particular the development of a patent thicket in the software industry, with 'potentially dozens or hundreds of patents covering individual components of a product'.[25]

The need to navigate patent thickets has been noted as particularly pronounced in industries such as telecommunications and computing where formal standard-setting is a core part of bringing new technologies to the market.[26] For example, James Bessen cites the example of Oracle Corporation, the software firm which has developed innovative database management systems.[27] Oracle chose not to patent its various innovations, apparently according to Jerry Baker, its Senior Vice President because of the risk of infringing numerous broad existing patents. According to evidence presented to the USPTO's Public Hearings on Patent Protection for Software-Related Inventions, since the 1990s Oracle has expended substantial money and effort to protect itself by selectively applying for patents that present the best opportunities for cross-licensing with other companies which might allege patent infringement.[28]

Empirical analyses of the impact of patent thickets upon patenting and upon research and development are few. The leading empirical studies focus on the semiconductor industry Hall and Ziedonis (2001) demonstrate that patenting in this industry rose sharply in the 1990s, suggesting the creation of patent thickets in that industry.[29] Ziedonis (2003) concludes that the incidence of patenting is a measure of

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[23] ALRC, *supra* note 13, at para. 12.80.

[24] U.S. FEDERAL TRADE COMMISSION (FTC), To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy (2003).

[25] *Id.* at 342.

[26] SHAPIRO, Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting in: NATIONALE BUREAU OF ECONOMIC RESEARCH (ed.), Innovation Policy and the Economy (2001); *See also* MAEBIUS/RADOMSKY, The Nanotech IP Landscape: Increasing Patent Thickets Will Drive Cross-Licensing, available at <http://www.foley.com/files/tbl_s31Publications/FileUpload137/2955/Document1.pdf> (as of March 2008).

[27] BESSEN, Patent Thickets: Strategic Patenting of Complex Technologies (2003), available at <http://www.researchoninnovation.org/thicket.pdf> (as of March 2008).

[28] U.S. Patent and Trademark Office (USPTO), Public Hearings on Patent Protection for Software-Related Inventions, January 26 & 27, 1994, at 24, available at <http://www.uspto.gov/web/offices/com/hearings/software/sanjose/sjhrng.pdf> (as of March 2008).

[29] HALL/ZEIDONIS, *supra* note .8.

the fragmentation of patent rights.[30] Similarly Nagaoka and Nishimura (2006) concluded that a firm in an industry in which there is extensive cross-licensing and in an industry with higher patent thickets has a higher propensity to patent its inventions.[31]

The U.S. Federal Trade Commission in its 2003 hearings on the interface between patent policy and competition policy observed that defensive patents may have negative implications for innovation. It reported that some companies have diverted resources from R&D to fund their defensive patenting programs and to cover legal expenses.[32]

Additionally, dealing with the owners of the thicketed patents will often involve prohibitive transaction costs and will impose research hold-ups as patent owners are identified and dealt with. Paradoxically, Noel and Schankerman observe that by increasing the transaction costs of R&D, patent thickets provide an incentive for firms to patent defensively, since a firm's bargaining power is raised by more patents to trade in patent disputes.[33] With the consequential increase in patents, transaction costs will rise as the complexity of negotiating multilateral licenses is increased.

However, Bessen (2003) suggests that even in situations where there are no transaction costs or research holdups, some companies aggressively seek to build large patent portfolios for the purpose of extracting benefits from competitors.[34] A phenomenon which has been identified is that negotiations are undertaken on the basis of portfolios of patents, rather than on individual patents.[35]

6. Patent Thickets and Biotechnological Innovation

The original research on patent thickets was Heller and Eisenberg's 1998 study on the 'Anticommons in Biomedical Research'. Their classic formulation was that

> By conferring monopolies on discoveries, patents necessarily increase prices and restrict use – a cost society pays to motivate invention and disclosure. The tragedy of the anticommons refers to the more complex obstacles that arise when a user needs access to multiple patented inputs to create a single useful product. Each upstream patent allows its owner to set up another tollbooth on the road to product development, adding to the cost and slowing the pace of downstream biomedical innovation.[36]

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[30] ZIEDONIS, Don't Fence Me In: Fragmented Markets for Technology and the Patent Acquisition Strategies of Firms, 50 Management Science 804 (2003).

[31] NAGAOKA/NISHIMURA, An empirical assessment of the effects of patent thickets (2006), available at <http://www.sussex.ac.uk/Units/spru/events/ocs/viewpaper.php?id=32> (as of March 2008).

[32] USPTO, supra note 28, at 347.

[33] NOEL/SCHANKERMAN, *supra* note 7.

[34] BESSEN, *supra* note 27, at 12, refers to IBM as an example of a corporation which aggressively seeks to build large patent portfolios with the idea to extort benefits from competitors.

[35] HALL/ZIEDONIS, *supra* note 9.

[36] HELLER/EISENBERG, Can Patents Deter Innovation? The Anticommons in Biomedical Research 280 Science. 698, 699 (1998).

Heller and Eisenberg had speculated that the lowering of patenting standards had encouraged the growth of patent thickets around both DNA sequences and fragments of DNA which raised difficulties for biotechnological innovators, first through the privatization of upstream research and secondly, through the introduction of excessive transaction costs. For example, a proposal by the International Rice Research Institute to make available to poor farmers protein and vitamin-enhanced 'Golden Rice' ran into the problem of some 70 patents over various enabling technologies and gene sequences.

7. Patent Pools

An alternative to cross-licensing as a means of negotiating patent thickets is the creation of patent pools. This is an arrangement among multiple patent holders to aggregate their patents, which are shared by members of the pool and made available on standard terms to non-members of the pool. The analogy is usually made between patent pools and collective rights organizations which manage copyrights. One of the first patent pools was formed in 1856 by a group of five sewing machine manufacturers as a means of resolving their patent infringement disputes with each other. Similarly, in 1908 the four pioneers of the motion picture industry pooled their patents to avoid infringement litigation.

This stratagem appears to have recommended itself to innovators in areas of newly emerging technologies. Thus a patent pool for the distribution of shared royalties was formed in 1997, by the ten companies who developed and sought to utilize the MPEG-2 compression technology standard. In 1998 and 1999 patent pools were established for the inventions that were essential for DVD-Video and DVD-ROM standard specifications. In 2005, a patent pool was formed by about 20 companies active in the Radio Frequency Identification (RFID) domain.

Patent pools have been suggested as a means of securing access to essential medicines. WHO's Commission on Intellectual Property Rights, Innovation and Public Health (CIPIH) suggested that pooling 'could be most useful for technologies particularly relevant to developing countries, because the lack of strong market incentives may enable agreements that would otherwise be more difficult to engineer'.[37] For example, the WHO has established the 'SARS[38] IP Working Group', to develop a patent pool for a SARS vaccine. Similarly, UNITAID, an international drug purchase facility, established on the initiative of Brazil, Chile, France, Norway and the UK to facilitate access to drugs and diagnostics to fight AIDS, malaria and tuberculosis in developing countries, has proposed the establishment of the UNITAID Medicines Patent Pool. This will focus on the patents required for anti-retroviral HIV AIDS treatments.

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[37] World Health Organization (WHO), Commission on Intellectual Property Rights, Innovation and Public Health, Public Health: Innovation and Intellectual Property Rights, 68 (2006).

[38] SARS = Severe Acute Respiratory Syndrome

The UNITAID Medicines Patent Pool will operate by seeking voluntary contributions of relevant patents by the patent holders to the Patent Pool for use in countries not designated as high-income by the World Bank.[39] In cases where the UNITAID Medicines Patent Pool failed to obtain voluntary licenses, it would seek non-exclusive open compulsory licenses from appropriate WTO members.

Underpinning the creation of a patent pool for essential medicines are the facts of: the high cost of patented medical products, particularly when marketed under monopoly conditions; restrictions on innovation and adaptation of proprietary medicines and devices to adapt to differing viral strains, changing immunities, related infectious diseases, local health system conditions and local patient customs; the necessity for access to economies of scale.

8. Patent Pools and Biotechnological Innovation

A study commissioned by the USPTO has suggested that patent pools are a solution to the problem of biotechnological patent thickets.[40] Questions of public health and nutrition could be considered to be sufficiently crucial for the government to mandate the creation of patent pools, as the US did in 1917 to secure access to aircraft patents. The USPTO study referred to the creation of the Manufacturer's Aircraft Association, because the two major patent holders, the Wright Company and the Curtiss Company, were blocking the development of new aircraft at the time of the First World War.

Similarly Ebersole *et al.* proposed the establishment of patent pools as a means of securing access to diagnostic genetics.[41] In 2001 the American College of Medical Genetics (ACMG) had sought to establish a standard for determining which mutations of a disease were significant and should be tested. Problems have been identified where diagnostic tests have been patented by different parties or where multiple patents have been secured for similar tests. For example, a number of diseases can be correlated to a genetic variation (single nucleotide polymorphism (SNP) within an individual. Where the relevant SNP or a fragment has been patented by multiple patentees, navigating the patent thicket can become prohibitive. Ebersole *et al.* give the example of patent thickets over multiplex tests, which permit the simultaneous testing of 25 mutations identified by the ACMG.[42] Patent pools are suggested as a means of dealing with these thickets. The suggestion that genomics might be too diverse a technological field to sustain patent pools[43] is met

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[39] *See* MÉDECINS SANS FRONTIÈRES, Intellectual Property Rights and Medicines Procurement: Patent Pools; Note for Consideration by the Ministry of Foreign Affairs (France) and UNITAID (2006).

[40] USPTO (ed.), CLARK/PICCOLO/STANTON/TYSON ET AL. Patent Pools: A Solution to the Problem of Access in Biotechnology Patents? (2000), available at <http://www.uspto.gov/web/offices/pac/dapp/opla/patentpool.pdf> (as of March 2008).

[41] EBERSOLE/GUTHRIE/GOLDSTEIN, Patent pools as a solution to the licensing problems of diagnostic genetics 17 IPTLJ 6 (2005).

[42] *Id.,* at 7.

[43] *Id.,* at note 65.

by the observation of Ebersole *et al.* that diagnostic genetics tends to be suitably focused for pooling.[44] The members of a diagnostic genetic patent pool would be those patent holders who have essential and complementary patents on specific genetic mutations. The pool would be administered by a body such as the ACMG. The incentives for participation by patentees would be their participation in an industry standard, mediated by a respected organization such as the ACMG and the freedom to operate within the pooled patents, as well as the prospect of higher revenues from participation in the pool.

9. The Impact of Competition Law upon Biotechnological Licensing

There is, of course an inherent conflict between the exclusivity of intellectual property rights and the freedoms sought to be guaranteed by competition law. Intellectual property law is content to allow mild distortions in competitive market conditions to realize long term benefits.

Licensing, like any commercial transaction could have anti-competitive effects where competitors agree to divide markets, fix prices or limit output or where the license has an exclusionary effect, for example where it excludes other potential licensors of substitutable intellectual property; or facilitates the licensee's accumulation of market power in competing technologies.

The TRIPS Agreement in Article 40 provides examples of other potentially anti-competitive license conditions. These include: grant-back provisions, which require the licensee to license back improvements that it makes to the licensed intellectual property; conditions preventing challenges to validity or coercive package licensing. Other restrictive conditions include: price or quantity restrictions on the licensee; coercive reach-through provisions as well as coercive tying conditions, where the patent holder includes non-patented products in the license.

Refusals to license patented biotechnology could affect competition within the relevant market for the research tool, or within downstream markets for goods and services developed using the tool.

In most cases, a patent will not confer market power on the patent holder because there will be numerous substitutes available for the patented invention.

10. The Impact of Competition Law upon Patent Pools and Cross-Licensing

The creation of patent pools was originally seen as an impermissible use of intellectual property rights beyond what was required to incentivise innovation. The hostility of competition law to patent pools was reflected in the US Supreme Court decisions in *Standard Sanitary Manufacturing Co. v. United States*[45] (1912) and

[44] *Id.,* at 10.
[45] 226 U.S. 20 (1912).

Hartford-Empire Co. v. United States[46] (1945) which struck down these patent pools on the grounds that they were devices to fix prices. The pro-competitive effects of patent pools, particularly in dealing with the transaction costs caused by impenetrable patent thickets, caused the U.S. Department of Justice and the Federal Trade Commission to issue *Antitrust Guidelines for the Licensing of Intellectual Property* ('*IP Guidelines*').[47] The *IP Guidelines* state that the pooling of IP rights is pro-competitive when it:

(1) integrates complementary technologies,
(2) reduces transaction costs,
(3) clears blocking positions,
(4) avoids costly infringement litigation, and
(5) promotes the dissemination of technology.

The exclusion of firms from pools may be considered anticompetitive if:

(1) the excluded firms cannot effectively compete in the relevant market for the good incorporating the licensed technologies,
(2) the pool participants collectively possess market power in the relevant market, and
(3) the limitations on participation are not reasonably related to the efficient development and exploitation of the pooled technologies.

The IP Guidelines indicate that anticompetitive effects may also occur if the pooling arrangement deters or discourages participants from engaging in research and development which is more likely 'when the arrangement includes a large fraction of the potential research and development in an innovation market.'[48]

In its first review of a patent pool under the guidelines, the Justice Department added a number of additional guidelines:

(1) the patents in the pool must be valid and not expired,
(2) no aggregation of competitive technologies and setting a single price for them,
(3) an independent expert should be used to determine whether a patent is essential to complement technologies in the pool,
(4) the pool agreement must not disadvantage competitors in downstream product markets, and
(5) the pool participants must not collude on prices outside the scope of the pool.[49]

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[46] 323 U.S. 386 (1945).
[47] Available at <http://www.usdoj.gov/atr/public/guidelines/0558.pdf> (as of March 2008).
[48] *Id.* at 29.
[49] MPEG-LA Review Letter, supra note 12 (citing IP Guidelines, § 5.5) (affirming of the Motion Picture Experts Group pooling of video systems patents) quoted in: Clark et al.,Patent Pools: A Solution to the Problem of Access in Biotechnology Patents? (2000), available at <www.uspto.gov/web/offices/pac/dapp/opla/patentpool.pdf> (as of March 2008).

A review by the USPTO in December 2000 indicates that the guidelines have been 'collapsed' into two overarching questions:

(1) 'whether the proposed licensing program is likely to integrate complementary patent rights,' and
(2) 'if so, whether the resulting competitive benefits are likely to be outweighed by competitive harm posed by other aspects of the program.'[50]

This analysis addresses whether the patents to be licensed are essential to complementing the central technology in the pool, the likelihood of collusion and the positive effects on innovation. This latter question involves a consideration of whether the pool participants are required to license to each other essential patents they obtain in the future.

The Australian Competition and Consumer's Commission (ACCC) follows the US approach in finding that patent pools and cross-licensing arrangements could have either positive or negative implications for competition. The ACCC noted the potential for price fixing, market sharing, or agreements among competitors without any possible pro-competitive justification. It suggested that patent pools would be less likely to raise competition concerns if:

– they combine complementary patents;
– licensing arrangements do not restrict access to the pool's technology by competitors, potential entrants, or third parties; and
– pooling arrangements do not facilitate sharing or access to competitors' commercially sensitive information in the relevant or downstream markets.[51]

11. Conclusion

The assumption that patent protection incentivises innovation has never been convincingly demonstrated, even in industrialized countries, although it underpins the globalized intellectual property regime. An explanation for the steady increase in patenting is the fact that the establishment of complex patent portfolios is increasingly becoming a business strategy. Patent portfolios are aggregated as bargaining chips in anticipation of dealings with competitors. This phenomenon has particularly characterized high technology industries, such as those which are digitally or biotechnologically based. This conduct has resulted in the establishment of patent thickets which have not only presented a barrier to new research and development, but which has also added considerably to the transaction costs of researchers. Techniques for navigating through these patent thickets include cross-licensing and the creation of patent pools.

Incidentally recognizing the fact that patenting has become a tool of competition is the increasingly sophisticated involvement of the competition regulators with these arrangements. At one extreme was the position taken by the US Supreme

[50] *Id.*, at note 32.
[51] ALRC, *supra* note 13.

Court which initially struck down these arrangements as devices for price fixing. At the other end of the spectrum was the approach of the Australian competition authorities which exonerated patent licensing arrangements as a special exception to prohibitions against anti-competitive cartel arrangements.[52] The position in both countries has now harmonized around assessments of the actual competitive impacts of patent pooling arrangements.

The role of patenting as a competitive tool has been noted by Professor Straus in other biotechnology contexts, particularly the shift from plant variety rights protection to patenting, which has enabled plant breeders to avoid the broad research and seed saving defenses which UPOV-based statutes would otherwise confer.[53] At the same time, he has noted that the patenting of biotechnological inventions is a way of preserving the value in biodiversity and in allocating benefits to source communities.[54] In both of these areas, further research is required to examine the extent to which competition policy can preserve the benefits which patenting should secure.

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[52] *See* Sec. 51 Para. 3 Trade Practices Act (1974).

[53] *See* STRAUS, Measures necessary for the balanced co-existence of patents and plant breeders' rights – a predominantly European view, paper presented at WIPO-UPOV Symposium on the Co-existence of Patents and Plant Breeders' rights in the promotion of Biotechnological developments (2002).

[54] *See* STRAUS, Biodiversity and intellectual property, in: AIPPI (ed.), AIPPI Yearbook: XXXVII Congress of the International Association for the Protection of Industrial Property (AIPPI), Workshops I-VII, 99-119 (1998).

Circumventing the Debate over State Policy and Property Rights: Section 3(d) of the Indian Patents Act Law

Tanuja V. Garde[*]

1. Introduction

The development of patent law in India, more so than any other intellectual property right, from the time of India's independence to the present has paralleled the development of industrial policy. Most recently seen in the debates over the patentability of new forms, captured in the infamous Section 3(d) of the patent law, the tension over ownership of property rights and the socialistic goals of the Indian constitution is not new. Indeed this tension has primarily been associated with the expropriation of agricultural lands from the *zamindars*, wealthy Indians that were often considered as cronies of the British Raj. Neverless the issues in the patent context are similar. Industrial policy battled with social policy, with the latter emerging as the victor, in the debate over patent rights on medicines. The development and change in the patent laws had the most adverse impact, from a perspective of property rights, on innovators of medicines, typically foreign enterprises. Interestingly, patents as a property right per se was not the issue; as discussed below, in the 1970 amendments and then later, in the amendments intended to implement the TRIPS Agreement, the patent rights in other areas of technology were, for the most part, not singularly affected. This article will discuss the development of patent law in India and attempt to address how the construction of Section 3(d) and the Madras High Court's decision in the *Novartis* case effectively immunizes the provision from judicial review under the rights afforded by the Constitution, thereby circumventing another protracted debate over just compensation for the taking of property rights as a measure to further the social policies outlined in the Constitution.

2. Industrial v. Social Policy: Patent Protection on Medicines

While India's patent law is rooted in the system erected by the British prior to independence, the amendments post-independence reflect the tension in India's development of industrial and social policies. In 1948, the government appointed a technical committee to review the relationship of patent rights to industrial development. The report of the committee, the Justice Bakshi Tek Chand Report[1] proposed the use

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[*] The views expressed in this paper are solely those of the Author and are not to be attributed in any manner to United States Trade Representative or the United States Government.

[1] The interim report was issued in 1949. *See* Report of the Patents Enquiry Committee, 1948-50, New Delhi: Govt. of India, Ministry of Industry and Supply, 1950.

of compulsory licenses as a means to address abuses of the system. The recommendations of the report were not codified.[2]

Subsequently, another technical committee, led by Shri Justice N. Rajagopala Ayyangar, was charged with the review of the patent laws. While the report of that committee acknowledged that the purpose of the patent laws is to promote the industrial policy of encouraging technological advancement, it noted that these purposes would not be achieved when applying a patent system to an underdeveloped country. Quoting the Interim Report, the Ayyangar Report noted:

> [T]he Indian Patent system has failed in its main purpose, namely, to stimulate invention among Indians and to encourage the development and exploitation of new inventions for industrial purposes in the country so as to secure the benefits thereof to the largest section of the public.[3]

The report focused on innovation among the domestic population and described the disproportionality of patent grants between domestic and foreign proprietors, with the ratio favoring the latter.[4] Focusing heavily on chemical products, the Report reasoned that process patents were more conducive to industrial progress as they would eliminate the product patent owners' monopoly over the development of new processes.[5] The report made several recommendations, some of which were aimed at subordinating patent rights to public health considerations.[6] The Patents Act 1970[7] followed these suggestions by recognizing both process and product patents, with the latter not being available for inventions relating to food, medicine or drugs or chemicals produced by a chemical process.[8] Furthermore, a patent claiming the method or process of manufacturing a substance for use as a food, medicine or drug

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2 A bill was introduced but lapsed when the lower House, the Lok Sabha, was dissolved.

3 N. RAJAGOPALA AYYANGAR, Report on the Revision of the Patent Law, Government of India (1959).

4 Indeed, it was shown that the number of patent applications filed from 1949-1958 was 143% greater than the number of applications filed from 1930-1939. However, the number of patent applications filed by Indians remained proportionally the same. Moreover, 91% of patents in force as of January 1, 1958 were owned solely by foreigners.

5 The concerns over foreign ownership were visible here as the percentage of patent applications relating to drugs and pharmaceuticals increased from 92% to 95% in the ten years following independence.

6 The first and fourth recommendations are as follows:
(1) defining with precision inventions which should be patentable and by rendering unpatentable certain inventions, the grant of patents, to which will retard research, or industrial progress or be detrimental to national health or well-being; …
(4) by providing special provisions as regards the licensing of patents for inventions relating to food and medicine

7 Act 39 of 1970.

8 Section 5 of the 1970 Patents Act. In the case of inventions –
(a) claiming substances intended for use, or capable of being used, as food or as medicine or drug,
(b) or relating to substances prepared or produced by chemical processes (including alloys, optical glass, semi-conductors and inter-metallic compounds)
no patent shall be granted in respect of claim for the substances themselves, but claims for the methods or processes of manufacture shall be patentable.

benefited from a shorter term of seven years from the date of filing or five years from the date of grant as compared to other inventions, where the term was reduced to fourteen years.[9]

The committee's work, the report, and the subsequent amendments to the patent laws were concurrent with other issues regarding property rights that were taking place in India.

3. Constitutional Debates: 'Takings' of Private Property Rights

The debates surrounding the ability of the government to expropriate property rights in furtherance of the social policy were present at the drafting of the Constitution. In 1948, the Union Cabinet adopted a resolution that decried the rights of the government to acquire industrial property, but noted that 'compensation will be awarded on a fair and equitable basis.'[10] The question of compensation was subject to much debate, and in particular with respect to the role of the courts in determining the compensation. However, the focus of the debate was on the expropriation of land, with Prime Minister Nehru clarifying that 'if and when foreign enterprises are compulsorily acquired, compensation will be paid on a fair and equitable basis as already announced in the Government's statement of policy.'[11] This resolution illustrated that the intent of the drafters was that the central government take an active role in the development of industry. While the focus was heavily on agricultural productivity and food distribution, as a result, intellectual property was placed on the Union List, *i.e.*, the list governing the matters for which the central government can make laws.

Expropriation of property rights again came to the forefront of Parliamentary debate in the 1970s when there was an attempt by the ruling Congress party to subordinate property rights to the Directives on State Policy in Article 39 (c) of the Constitution. In the context of Article 38, which directs the government to 'secure a social order for the promotion of welfare of the people', the provisions provide that:

> The State shall, in particular, direct its policy towards securing …
>
> *(c)* that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment;

The attempts by the Parliament to move property rights out of the fundamental rights and into the Ninth Schedule, thereby immunizing it from judicial review, gave rise to a protracted legal debate and forced a confrontation between the authorities

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[9] The changes had their intended effect: the total number of applications dropped by half in the first five years following the amendments; interestingly, while the percentage of patent applications by foreigners decreased substantially; there was no significant difference in the number of applications filed by Indians.

[10] GOVERNMENT OF INDIA, Resolution on Industrial Policy, No. 1(3) – 44(13)/48, dated April 6, 1948.

[11] CONSTITUENT ASSEMBLY OF INDIA (Legislative Debates), Vol. IV, No. 1 of April 6, 1949, 2386.

and mandates of the legislative and judicial branches of the government. In these debates, Prime Minister Indira Gandhi asserted that:

> It is unacceptable to us that a few should skim the cream of social investments, defrauding society as a whole … The whole idea of private profit at the cost of the common man is repugnant to me, to my party, and, I think, to the nation.[12]

The Ninth Schedule was created to contain acts that were deemed valid prospectively and retrospectively notwithstanding anything in the Constitution. It has been noted that Chief Justice P.B. Gajendragadkar described the Indian Constitution as the only one containing a 'provision providing for protection against itself.'[13] Amendments related to the regulation of monopolies and restrictive trade practices were also added to the Ninth Schedule. Ultimately, the 'fundamental right to acquire, hold and dispose of property' under Article 19f was later removed and Article 31 which provided for just compensation in the case of government taking of property was repealed. Instead, the right to property became a legal right under Article 300A and ultimately, these rights became subordinate to the Directives on State Policy.[14]

4. India's Accession to the WTO: Implementation of the TRIPS Agreement

The Agreement on the Trade Related Aspects of Intellectual Property Rights (hereinafter 'TRIPS') changed the landscape for protection of intellectual property and, in particular for India, its implementation was subject to much domestic opposition.[15] During the negotiations, there were not only North-North differences but also North-South discordance, particularly with respect to compulsory licensing of patents. Indeed, a group of developing countries, including India, argued for compulsory licensing of patents and exceptions to patentability:

> As regards Part II, Section 5, patents, … reaffirmed the vital importance to developing countries of the possibility of exclusion of certain products and processes from patentability on grounds of public interest, health or nutrition as provided in Article 28.[16]

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[12] Lok Sabha Debates, Fifth Series, vol. 9, no. 12. For a detailed analysis of the debates, *see* AUSTIN/GRANVILLE, Working a Democratic Constitution (Oxford University Press 1999, rep. 2007).

[13] *See* AUSTIN/GRANVILLE, *id.* at 85.

[14] But *see Minerva Mills Ltd v. Union of India, et. al.*, 1981 (1) SCR 206

[15] Though India is an early signatory member to GATT, during subsequent negotiation rounds, there was a sense that GATT favored the developed, rather than developing, countries. In 1958, a committee reviewed the functioning of GATT and concluded in its final report, known as the Haberler Report, that developing countries faced an unbalanced system, which led to the establishment of the United Nations Conference on Trade and Development. *See* SIDDIQUI/JAMSHED, GATT: The Indian Paradigm in: GUPTA (ed.), GATT Accord and India (1994). As a result, Article XXXVI in Part IV was implemented, recognizing that a country's stage of development should be a factor when determining its treatment under the Agreement.

[16] *See* GERVAIS,The TRIPS Agreement – Drafting History and Analysis 20-21(2nd ed. 2003) (citing documents MTN.GNG/NG11/25 and MTN.GNG/NG11/27).

In addition, the developing countries argued for a working standard to be incorporated in the agreement.[17] Hence it was made apparent that compromises were going to be difficult to reach and negotiations would be arduous. Consequently, the Dunkel Draft was circulated and proposed, with respect to patents, that patentability be available for inventions in all fields, with a possible exception for plants and animals. The execution of the Uruguay Agreement was finalized in Geneva on December 15, 1993.

India, as a developing country, was strongly opposed to the text, despite the allowance of a transition period. In September of 1993, delegates from the National Working Group on Patent Laws (India), the Indian Drug Manufacturers Association and groups from other developing countries, submitted a declaration and statement expressing concern of the impact of TRIPS on industry, science and technology worldwide. Specifically, they declared that 'governments must reject the proposals to impose a monopolistic patent regime' and that the scope of subject matter that can be patented should remain a sovereign right. India was also concerned about limitations on compulsory licensing, particularly in cases where a patent was not being worked in the country.[18] The statement was issued to support the declaration, and noted that it is essential for developing countries in particular that:

> (a) the supremacy of national laws of patent protection be maintained in particular for adopting measures necessary to protect public health and nutrition and to promote public interest in sectors of vital importance to their socio-economic and technological development;
>
> (b) in their national laws on patent protection, the developing economies must balance rights granted to outside technology owners with adequate obligations on them. Only then will they obtain much needed technology under fair terms and conditions in conformity with their public interest requirements …[19]

This position reflects the bias against industrial development and assumes again that property rights subvert the promotion of public health.

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[17] Article 30 on conditions and obligations of patent owners, should … clearly specify that working the patented invention in the country of grant was one of the obligations of the patentee. Such working was an essential element upon which the patent system was based, and was part of the balance between the interests of patent owners and those of the country undertaking to protect inventions.

[18] *See* WORKING GROUP ON PATENT LAWS, New Delhi Declaration on the Patent Regime Proposed in the Draft Final Act of the Uruguay Round of GATT Negotiations, September 2 to 4, 1993, in: International Conference on Patent Regime Proposed in the Uruguay Round (1993).

[19] WORKING GROUP ON PATENT LAWS, *id*. Interestingly, the position of India did not attract more developing countries in large part because the others had already made substantial steps towards international integration. Rather, most developing countries at this time had realized that a liberal world trading order was necessary for their domestic reforms to bear fruition. *See* INSTITUTE FOR INTERNATIONAL ECONOMICS, Reintregating India with the World Economy, available at <http://www.iie.com/publications/chapters_preview/98/3iie2806.pdf> (as of May 2008).

Nevertheless, in 1995, India became a member of the World Trade Organization, and was obligated to amend the patent laws to comply with the provisions of the TRIPS Agreement, though India was given a grace period of five additional years to comply and an additional five years to amend its patent laws to provide for pharmaceutical product patent protection. As India failed to provide means to protect such inventions during the transition period, illustrating its first attempt to not give full effect to the provisions of the TRIPS Agreement, the United States requested a WTO Dispute Settlement Panel, maintaining that India did not provide a process for filing pharmaceutical product applications and did not provide for exclusive marketing rights during the five year transition period, as was required by Article 70 of the TRIPS Agreement.[20]

The WTO panel ruled that India failed to comply with its TRIPS obligations. In its reasoning, the panel pointed out that a means for filing applications directed to pharmaceutical and agricultural chemical products was required during the transition period as such applications must be examined after the expiration of the period and if all requirements for patent protection are met, a patent must be afforded. Moreover, the developing country must provide for a means of exclusive marketing rights ('EMRs') during this transition period.[21] In the end, the Panel found that the lack of legal security in the operation of the mailbox system rendered it inadequate to serve the purpose of Article 70.8 and that its failure to notify the Council on TRIPS of the legal basis of India's assertion that it had an effective system for receiving patent applications constituted a failure to comply with the transparency obligations under Article 63.

With respect to EMRs under Article 70.9, India was required to amend its laws no later than April 19, 1999.[22] The Patent (Amendment) Act of 1999[23] followed this ruling, allowing for mailbox applications for product patents and introduced the concept of exclusive marketing rights for five years for pharmaceutical and agricultural products, where a claim for such product was already patented in a Convention

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[20] U.S. companies had filed 27% of the applications directed towards pharmaceutical and agricultural chemical products.

[21] These systems were required to be in place as of January 1, 1995, even though for some countries, such as India, product patent protection for pharmaceutical and agricultural chemical products need not be available until January 1, 2005. Further, as the central object and purpose of Article 70.8 is to preserve novelty and priority rights, there must be a sound legal basis for the filings that protects the legitimate expectations of other WTO members.

[22] *See* WTO Panel Report, India – Patent Protection for Pharmaceutical and Agricultural Chemical Products, WT/DS50/R (97-3496) (September 5, 1997); *see also* WTO Appellate Report, India – Patent Protection for Pharmaceutical and Agricultural Chemical Products, WT/DS50/AB/R (97-5539) (December 19, 1997)(upholding the Panel's conclusions regarding Articles 70.8 and 70.9).

[23] *See* The Gazette of India, No. 22, New Delhi (March 26, 1999)(available at http://ipindia.nic.in/ipr/patent/patact_99.PDF).

country.[24] Not surprisingly, EMRs were not readily granted and indeed the first EMR granted was the subject of a recent dispute.[25]

India's further amendments to the patent law in 2002 and 2005 were subject to much controversy, suggesting a greater degree of organization and awareness by the public of the implications of WTO accession. Legislation bringing the patent laws in line with TRIPS had to take effect as of January 1, 2005 for India not to be violating its obligations. However, as late as December 23, 2004, the last day Parliament was in session for the year, no legislation was introduced due to differences in the ruling coalition, which was struggling under pressure from leftist allies and segments of the manufacturing industry.[26] The primary concerns stemmed from a new law's effect on the pharmaceutical industry. A balance needed to be struck between activists, industry and the political parties. At that time, the support of the Communist party was critical to the survival of the ruling coalition.[27] The debate focused on the effect of patent protection for medicinal products; however, while the issue symbolized health care implications for a large poverty centric population, it is important to note that there was also a recognition that such an amendment would reduce the significantly high profits enjoyed by domestic generic drug manufacturers and potentially render tens of thousands of people in this industry unemployed.[28] Proponents of the amendments maintained that the changes would spur innovation, attract foreign investment, and improve overall access to new drug technologies.

Despite India's obligations, the public opposition to providing patent protection for pharmaceutical products proved to be somewhat successful. In particular, the

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[24] *See* Patents (Amendment) Act, 1999 Section 24B:
(1) Where a claim for patent covered under sub-section (2) of section 5 has been made and the applicant has –
(a) where an invention has been made whether in India or in a country other than India and before filing such a claim, filed an application for the same invention claiming identical article or substance in a convention country on or after the 1st day of January, 1995 and the patent and the approval to sell or distribute the article or substance on the basis of appropriate tests conducted on or after the 1st day of January, 1995, in that country has been granted on or after the date of making a claim for patent covered under sub-section (2) of section 5; or
(b) where an invention has been made in India and before filing such a claim, made a claim for patent on or after the 1st day of January, 1995 for method or process of manufacture for that invention relating to identical article or substance and has been granted in India the patent therefore on or after the date of making a claim for patent covered under sub-section (2) of section 5, and has received the approval to sell or distribute the article or substance from the authority specified in this behalf from the Central Government, then, he shall have the exclusive right by himself, his agents or licensees to sell or distribute in India the article or the substance on and from the date of approval granted by the Controller in this behalf till a period of five years or till the date of grant of patent or the date of rejection of application for the grant of patent, whichever is earlier.

[25] *See infra* notes 33-42 and accompanying text.

[26] *See* RAJESH MAHAPATRA, 'India Struggles with Patent Reform', Financial Times December 26, 2004.

[27] *See id.* (noting that the Communist party insisted on parliamentary debate on the issue: 'If there is an ordinance that fails to address our concerns, the government will be in trouble.' (quoting Nilopat Basu, a Communist politician)).

[28] *See id.*

Patents (Amendment) Act of 2005[29] also broadened the classes of inventions that are not patentable, and subjected patents related to pharmaceutical chemicals to a higher burden.[30]

5. Section 3(d) of the Patents Act

Section 3(d) of the Patents Act provides that the following does not constitute an invention under the patent law:

> The mere discovery of a new form of a known substance which does not result in increased efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such process results in a new products or employs at least one new reactant.
>
> *Explanation*: For the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy.

Section 3(d) was added on the floor of the Lok Sabha and was motivated by a concern of 'ever-greening' of patents by multi-national corporations as well as access to medicines. Citing Glivac as an example, Parliamentarian Suresh Kurup expressed concern to Minister Kamal Nath of the Ministry of Commerce and Industry that a new form of a known compound may benefit from patent protection.[31] In his response, Minister Nath noted that there is no question of 'evergreening' in view of Section 3(d).[32] Characterizing this type of innovation, termed often as incremental innovation, as 'evergreening' highlights the intent of the Parliament to ensure no property rights are available for new forms, *etc*., *per se*, without an additional showing of improvement, thereby maintaining that pharmaceutical patent rights should be subordinate to public health concerns. Indeed, the term 'evergreening' itself has been used to maintain that double patenting should not be allowed, an argument that is valid in its intent but inaccurate in its assumption. That previously patented technology falls into the public domain upon expiration of the patent was apparently not recognized or understood during the debates over the 2005 Amendments and thus public health concerns over a concept that is based on a false assumption appears to have swayed the Parliament.

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[29] *See* The Gazette of India, No. 18, New Delhi (April 5, 2005)(available at http://ipindia.nic.in/ipr/patent/patent_2005.pdf)

[30] *See* Section 3(d) Patents (Amendment) Act of 2005.

[31] *See Novartis AG v Union of India* (Affidavit of Petitioner) (w.p.no.24759 of 2006), dated May 17, 2006.

[32] *See id*.

5.1 The Novartis EMR cases

Novartis filed a patent application in 1998 and applied for an Exclusive Marketing Right (EMR) pending the grant of its patent. Novartis received the EMR in 2003; subsequently, though possibly coincidentally, the Comptroller General who granted the EMR to Novartis was fired.[33] Soon thereafter, Novartis sought an injunction to stop defendant Adarsh Pharma from infringing its EMR. The Madras High Court granted injunctive relief *ex parte* in January 2004. The defendant appealed arguing that the invention was not novel but also argued that the plaintiff tried to create 'a monopoly and to take the entire profits out of the sale of drugs … adversely affecting the interest of the patients in India.'[34] The defendant then pointed out the difference in the cost of the drugs, stating that the patented drug was seventeen times more expensive than its generic version and that in 'India, being a poor country, many cannot afford to buy the plaintiff's product and ultimately, they would die untreated.' The court rejected this argument. After going through a lengthy and detailed discussion on the validity of the EMR, the court noted that 'when the Statute protects such rights, in my opinion, the balance of convenience loses its significance, especially when the parties in opposition do not have a legal ground in their favour at this stage.' The court further noted that the government has a right to fix the price of at which a drug with an EMR can be sold.[35] In the end, the court upheld the injunction. This decision was not received favourably by the public, as there was a general mistrust of patents on pharmaceuticals, believing that patents grant a monopoly and render life-saving medicines out of reach of the majority of the people.

A few months later, the Bombay High Court considered another action by Novartis that sought an injunction against Mehar Pharmaceuticals.[36] Here, again the defendants submitted that the drug under patent is a life-saving drug and the only drug in the market capable of combating blood cancer. The defendant noted that nearly 30,000 patients are afflicted with the disease and about 10 patients die every day. Interestingly, the defendant also noted that there is a lack of manufacturing capacity by the patentee to accommodate this demand; moreover, the issuance of an injunction would 'stifle all avenues of supply of this life-saving drug and leave the patients at the mercy of the erratic and costly supply by the plaintiffs.'[37] It was further pointed out that the plaintiffs do not manufacture the drug in India but rather that it is imported from Switzerland and that the defendant manufactures and sells

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[33] *See* NAREBDRANATH, 'Patents' controller fired over EMR to Novartis', Economic Times, September 7, 2004, available at <http://economictimes.indiatimes.com/articleshowarchive.cms?msid=842919> (as of May 2008).

[34] *Novartis AG v Adarsh Pharma*, 2004(3)CTC95 (High Court of Madras, April 28, 2004).

[35] *See Novartis AG v Adarsh Pharma, id.* (citing Section 24-D of the Patents (Amendment) Act 1999).

[36] *See Novartis AG v Mehar Pharma*, 2005 (3)BomCR 191 (High Court of Bombay, December 23, 2004).

[37] *Id.*

the product in India and received in excess of Rupees 10 crores[38] (approximately $2.5 million (USD)). The defendants pointed to their charity programs for delivery of the medication.

The court denied injunctive relief. In its reasoning, the court first pointed out that there were questions regarding the validity of the patent. Then the court noted that the balance of convenience was in favor of the defendant because the drug was a life-saving drug and it was an imported drug. The concern of the court was that though the plaintiffs stated they would meet the demand, because it was imported, if there was a problem in the international transport system, then the plaintiffs could not make the drug available in the required quantity, which would be disastrous. Moreover, an injunction would cause the defendant to dismantle its manufacturing system and thus if there were a problem with the international transport system, then the patients would not receive their medicine. Interestingly, this was a drug that the defendant noted affected .003% of the population – this was not, *e.g.*, an anti HIV drug or a malaria drug or a drug for another prevalent disease. Thus, more than the availability of this particular medicine, it appears more likely that the court was making a statement about the patentability of life-saving pharmaceuticals. This case set an important precedent. It appears that the court attempted to legitimize a provision that was crafted with the primary intent of appeasing public opinion.

The following month, the High Court of Madras issued its opinion in another case brought by Novartis. In *Intas Labs Pvt. Ltd. v. Novartis A.G.*,[39] the court referred to the case earlier decided by the High Court but in this case, it noted that the public interest factor merits serious consideration, 'particularly in the case of [the] supply of medicines for Chronic Myeloid Leukaemia.'[40] In this case, the court upheld the injunction but only upon the patentee's proposal of a supply and pricing arrangement for the drug.[41] Interestingly, neither court appeared to consider the profits the defendants made through the manufacture and sale of the drug.

5.2 The Novartis Patent Application

In 2005, the mailbox 'opened' and the application was examined. The Madras patent office rejected the patent application, based primarily on the newly amended Section 3(d) of the Patents Act. The Patent Office stated that the invention was only a new polymorphic form of a known compound and that the properties did not differ significantly with regard to efficacy. Novartis challenged the ruling of the Patent Office, arguing that the patent is valid under Section 3(d) and alternatively, that Section 3(d) is not valid under the Constitution and is not consistent with the TRIPS Agreement. The court, recognizing the importance of the question, appointed a two-judge panel. A few weeks before the High Court rendered its decision, the Government of India appointed a patent technical expert to the Intellectual Property Appel-

[38] One crore is equivalent to ten million rupees.

[39] *Intas Labs Pvt. Ltd. v. Novartis A.G.,* 2005(1)CTC27 (High Court of Madras, December 20, 2004)

[40] *Id.*

[41] *Id.*

late Board (IPAB), thereby making it functional to hear appeals from the patent office. As the Novartis case dealt with two issues, i.e., the rejection of the application under Section 3(d) and the validity of Section 3(d), the case was separated with the question of patentability under Section 3(d) appealed to the IPAB. Interestingly, the technical expert the government appointed to the IPAB was the former Controller General of the Patent Office when Novartis' application was rejected. Novartis challenged this move as creating a conflict but during the hearings, the Government of India proposed using a two-judge panel, not including the technical expert previously appointed. A generic manufacturer of Glivec, Natco, challenged this move up to the Supreme Court. The Supreme Court agreed with Natco and issued a stay order effectively halting the hearing before the IPAB.

There is a possibility that the government considered the decisions of Madras High Court in the Novartis EMR cases when it appointed the former Controller General to the IPAB in part to avoid a narrow interpretation of Section 3(d). Around the same time, the Report of the Technical Committee headed by Dr. R.A. Mashelkar was issued, which promoted incremental innovation and suggested guidelines for the applicability of Section 3(d). This report was quickly withdrawn, with the government citing technical reasons, and another report was expected to issue in the next few weeks.[42] It is curious whether the timing of the move to the IPAB would have been different had the High Court of Bombay been charged with the appeal.

In the meantime, the High Court of Madras delivered its opinion as to whether Section 3(d) violated the Constitution or was inconsistent with the TRIPS Agreement.[43] The court held that the language was not arbitrary or vague and therefore was not in violation of Article 14 of the Constitution and moreover that declaratory relief under Article 226 of the Constitution on the ground that Section 3(d) violated TRIPS could not be granted as such relief would not be a basis for the patentee to claim relief at a later stage, a requirement for declaratory relief under Article 226 to be granted. Finally, when faced squarely with the issue of jurisdiction of the consistency of the amendment with the treaty the law was amended to implement, the Court refused jurisdiction, noting the question of TRIPS consistency should be answered through the dispute settlement mechanism of the WTO.

6. Conclusion

The constitutional issue is a curious one. Novartis argued that the language was arbitrary or vague, thereby violating Article 14 of the Indian Constitution, and that without guidelines, there would be no standard for application of the provision by patent examiners.[44] While weak, in view of the Constitution's diminishing value of property rights, this may have been the only hook to maintain a constitutional question that deserved some, albeit little, review. Interestingly, prior to the examination

[42] To date, the report has not been published.
[43] *See Novartis AG v Union of India*, (2007) 4 MLJ 1153 (High Court of Madras, August 6, 2007).
[44] *See id.*

of the application in the mailbox, the courts sought to balance some aspect of the property right, in the form of an exclusive marketing right, with the idea of just compensation. Pending the determination of the scope of Article 3(d), or perhaps even thereafter, there is some question as whether courts will involve themselves in price determinations and compensation as a basis to uphold or deny temporary injunctive relief, similar to their approach with respect to exclusive marketing rights, and avoid making a preliminary determination of validity or invalidity under Section 3(d) at the interim injunction stage.

On the other hand, Parliament's inclusion of Section 3(d) in the article directed to unpatentable inventions arguably precludes the question of any taking of property rights, as it is arguable that no property is being taken. There is little doubt that India's approach is based upon a public health perspective, namely the concern that absent such provision, the law would allow 'evergreening' or an extension of a patent protection through multiple patents on the same invention. Some have argued that Section 3(d) is acceptable under the TRIPS agreement through the recognition in the Doha Declaration of flexibilities in the TRIPS Agreement.

It is unclear, however, why, in light of changes to the laws to provide pharmaceutical patent protection, Section 3(d) is necessary if the intent was to promote access to medicines. In other words, inclusion of this provision raises questions as to the purpose of limiting the scope of property rights particularly considering other measures available in the patent law to use the property if a public health issue arises. Further, concerns about 'evergreening' could have been addressed by describing efficacy as one of several factors when determining inventive step.[45] Accordingly, it is possible that section 3(d) was added not merely to protect against such 'evergreening' but rather to limit the ability to obtain adequate remuneration by narrowly construing what constitutes an 'invention' under the TRIPS Agreement.

Ultimately, in constructing Section 3(d), Parliament effectively limited the ability to obtain property rights in incremental pharmaceutical innovation, where currently the bulk of pharmaceutical research and development occurs, including medicines that may be more effective in tropical climates, such as heat stable forms, but not necessarily more efficacious. The absence of a legal property right effectively circumvents a battle over a determination of just compensation or equitable remuneration, as required when issuing a compulsory license. Yet, by denying any property right in such an invention, Parliament invites scruting of the laws with respont to TRIPS compliance, including whether Section 3(d), by attempting to define 'invention' in a manner that avoids the grant of property rights in certain technological fields, violates the obligation to make available patents in all fields of inventions,[46] and, consequently, further debate on the role of the Directives on State Policy with respect to protections for property rights under the Constitution of India.

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[45] *See F. Hoffmann-La Roche Ltd v. Cipla*, I.A. 642/2008 (High Court of Delhi, March 19, 2008)(where the court considered inventive step when analyzing Section 3(d)).

[46] *See* TRIPS Agreement Article 27.

Medical Use Claims: EPC 2000 and its Impact on Prosecution and Enforcement

Hans-Rainer Jaenichen, Jürgen Meier, Niels Hölder

1. Introduction

Patents, economic monopolies granted for a limited period of time, are generally considered by the world wide industry as an important tool for returning investments into new technologies to further develop them up to a level on which society can profit from them. Such patents are also particularly important in the pharmaceutical area. It is currently understood that the development of a pharmaceutical until its introduction into the market costs about $1.7 billion. Thus, it is straight forward that optimization of medical care strongly depends on the patentability of research based technical contributions in the pharmaceutical area. In this context, it should also be mentioned that 99.9% of the tentatively useful pharmacologically active compounds for which there has been proof of concept eventually fail. The average success rate of those compounds that make it into clinical trials is only 11%. This continuous searching for the needle in the haystack makes it a challenging task to operate a pharmaceutical company steadily on a profitable level, something that tends to be forgotten in academic debates about patenting pharmaceutical inventions.

In the United States, in Japan and in the contracting states of the European Patent Convention it is customary practice to grant *compound protection* for lower molecular weight organic compounds, proteins and antibodies, to mention a few. This even applies to Germany, France and Italy after the amendment of their national Patent Acts in light of Directive 98/44/EC of the European Parliament and of the Council of July 6, 1989 on the Legal Protection of Biotechnological inventions. Examples of successful drugs based on lower molecular weight organic compounds are Clodronate and Ibandronate (for osteoporosis), Atorvastatin and Symvastatin (fat metabolism disorders) and Olanzapine (schizophrenia). Examples of successful drugs based on recombinant proteins are Somatotropin (human growth hormone for GH deficiencies), Epoetin (erythropoietin for anemia) and Filgastin/Lenograstim (G-CSF for recovery from neutropenia). Finally, examples of successful drugs based on antibodies developed relying on genetic engineering are Herceptin (metasstatic breast cancer), Avastin (colorectal cancer) and Mylotarg (acute myeloid leukemia).

In the patent area we historically distinguish between *compound patents, first medical use patents* and *second medical use patents*.

Compound patents often come first. However, mostly a patent application is filed for a compound because it has pharmaceutical relevance. Other patent applications deal with situations where a compound has already been patented and has been

publicly available when it is discovered that it can be used for the treatment of a disease. In both cases, the pharmaceutical value of the compound can be protected by 'first medical use claims' in a patent in the US, Japan and in Europe.

In another frequent scenario the respective compound as well as its usefulness for treating one or more diseases have been known in the art when it is discovered that it can be used for treating a further disease. This is called a 'second medical use invention'. A classical example is acetyl salicylic acid, the active compound contained in, *e.g.*, Aspirin®. First, it was used to treat pain, *e.g.*, headache. Then it was discovered that it can also be used as a prophylaxis for cardiovascular diseases. In this example another patent could hypothetically be granted if properly limited to taking the known compound for treating the other, new disease. Frequently, the 'second medical use' is the first commercially really successful use.

Further to the possibility to protect the mentioned innovations by patents, there is the option to achieve collateral protection by Supplementary Protection Certificates (SPCs),[1] data protection/market exclusivity[2] and, *e.g.*, orphan drug[3] and pediatric regulations.[4] Given the above discussed challenges for the industry working in this area of pharmaceutical technology, this protection in addition to the available network of compound patents and first and second medical use patents is entirely justified to create a fair chance for return of investment while selling the corresponding drugs for a reasonable price. It has to be understood that even given these additional tools for providing a monopoly, the last 15 blockbuster drugs only had an average market exclusivity of 13 years.

Europe is one of the most important global markets. In the meantime the heart of Europe has a unified patent system that is based on the European Patent Convention (EPC). As of January 1, 2008, there have been 34 contracting states.[5] The EPC has been in force since October 7, 1977. Its executing organ, the European Patent Office (EPO) has accepted European patent applications since July 1, 1978. After more than 20 years of practicing this EPC, the EPC1973, its users and the EPO had developed a strong interest in refining the EPC. The working project was called 'EPC2000' and, finally, EPC2000 was put into force by the signature of the required 15 contracting states on December 13, 2007. Besides many changes in procedural issues, the introduction of centralized European limitation proceedings and the introduction of a possibility for a further appeal against decisions of the Appeal Boards to the Enlarged Board of Appeal, there have been major changes in the EPC that are relevant for patenting and enforcing intellectual property in the pharmaceutical area.

Before we turn to the amendments in the EPC by EPC2000 and to some of their consequences, we would like to congratulate Professor Straus to his birthday and

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1 Regulation 1768/92.
2 Article 10(1) of Directive 83/2001 (as amended).
3 Article 8(1) of regulation 141/2000.
4 Article 36(1) of regulation 1901/2006.
5 List of contracting states: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, HR, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR. The extension states are: AL, BA, MK, RS.

thank him for all the conversations, debates and discussions we had throughout the years!

2. Patenting Scenarios

2.1 The Changing Legal Background and its Consequences for Claiming Medical Use Inventions

2.1.1 First Medical Uses: Patentable Already Under the Old EPC (EPC1973)

The first relevant stipulation for patenting first medical uses under the old EPC1973 was Article 52(4):

> Methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body shall not be regarded as inventions which are susceptible of industrial application within the meaning of paragraph 1. This provision shall not apply to products, in particular substances or compositions, for use in any of these methods.

The second relevant stipulation for patenting first medical use inventions in the EPC1973 was Article 54(5):

> The provisions of paragraphs one to four shall not exclude the patentability of any substance of composition, comprised in the state of the art, for use in a method referred to in Article 52, paragraph 4, provided that its use for any method referred to in that paragraph is not comprised in the state of the art.

Thus, while methods for the treatment of the human or animal body were unpatentable, the patentability of first medical use inventions was specifically established by Article 54(5) EPC1973 as it established that there would still be novelty for first medical use inventions even if the compound that is used for the 'first medical use' was already known in the art. Accordingly, the corresponding claim options were available:

> Compound X for use as an active pharmaceutical substance.

or

> Pharmaceutical composition comprising compound X and, optionally, a pharmaceutically acceptable carrier and/or diluent.

While there has been a plethora of decisions dealing with when first medical use inventions are patentable, *T 128/82, 'Pyrrolidine derivatives/HOFFMANN-LA ROCHE'*,[6] has been a pioneering one indicating that the inventor of a first medical use is entitled to a scope of claims covering all therapeutic uses, *i.e.*, it is not required to limit such claims to the actual first medical use that was discovered.

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[6] All EPO decisions cited herein are available from, *e.g.*, the EPO homepage, from Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) or from IIC.

Article 54(5) EPC1973 was editorially amended in EPC2000 and became Article 54(4) EPC:

> Paragraphs 2 and 3 shall not exclude the patentability of any substance or composition, comprised in the state of the art, for use in a method referred to in Article 53(c), provided that its use for any such method is not comprised in the state of the art.

2.1.2 Second Medical Uses: How Jurisprudence Created Patentabililty Under the EPC1973

The EPC1973 did not contain any specific stipulation in the body of its law that would have provided direct guidance for the circumstances under which second medical uses would be patentable and, if so, how corresponding claims could be practically drafted. It did not really come as a surprise that already in the early days of the EPO's activities, there were applicants who vigorously requested the grant of second medical use patents. Thus, as early as in 1983, there were already three parallel cases pending before the Enlarged Board of Appeal of the European Patent Office (EBA) that dealt with the patentability of second medical use inventions: *G 1/83, 'Second medical indication/BAYER', G 5/83, 'Second medical indication/ EISAI'* and *G 6/83, 'Second medical indication/ PHARMUKA'*. The result of the sophisticated legal debates documented in these decisions was that under EPC1973 second medical use contributions were patentable, but only when claimed by a so-called 'Swiss-type-of-claim':

> Use of compound X for the preparation of a pharmaceutical composition for treating or preventing disease Y.

2.1.3 Second Medical Uses: EPC2000 Directly Provides for Their Patentability

As pointed out earlier, an important amendment effected by EPC2000 was the incorporation of Article 54(5):

> Paragraphs 2 and 3 shall also not exclude the patentability of any substance or composition referred to in paragraph 4 for *any specific use* in any method referred to in Article 53 (c), provided that such use is not comprised in the state of the art.
>
> (emphasis added)

Based on this reformulated legal background, second medical use claims will after the advent of EPC2000 also be available in the form of purpose-limited compound claims, *e.g.*:

> Compound X for treating disease Y.

or

> Pharmaceutical compositions for treating or preventing disease Y comprising compound X.

This new claim format is supported by T1599/06.

The new Article 54(5) EPC2000 provides legal certainty also for countries whose courts had doubts as to the validity of Swiss-type claims.[7] As such claims were only developed by the case law of the EPO Boards of Appeals and as the courts of the EPO contracting states are in general not bound by such case law, patentees had to deal with a degree of legal uncertainty which may have made it difficult to rigorously pursue claims for infringement as well. With purpose-limited product claims being provided for in the EPC2000, they cannot be put into question anymore. This is because national revocation proceedings against patents granted by the EPO can only apply the Article 138 EPC2000 nullity reasons, *i.e.*, for such proceedings the patenting options created by Article 54(5) EPC2000 have to be respected.

2.2 Case Law of the EPO

As mentioned in section 2.1.2, supra, it was initially required to establish whether second medical use inventions can be patented at all and, if so, how this could be done. Of course, after this had been positively attested by *G 1/83* and its fellow EBA cases, a large variety of fact situations has arisen with which the Boards of Appeal of the EPO had to deal in order to refine the jurisprudence's understanding of when second medical use contributions are patentable.

The following discussion of this jurisprudence focuses on some significant cases in order to illustrate which features characterizing second medical use inventions can be a key to patentability.

2.2.1 How to Define the Disease to be Treated?

The question that arose in *T 241/95, 'Serotonin receptor/ELI LILLY'* was how detailed the disease to be treated has to be characterized in a second medical use claim. The applicant requested that a patent be granted on the basis of the following claim:

> The use of (R)-fluoxetine, that is (R)-fluoxetine substantially free of S-fluoxetine, or a pharmaceutically acceptable salt or solvate thereof, for the preparation of a medicament for treating a mammal suffering from or susceptible to a condition which can be improved or prevented by selective occupation of the 5-HT_{IC} receptor.

The Technical Board took the position that the term 'a condition which can be improved or prevented by selective occupation of the 5-HT_{IC} receptor' is unclear so that it did not satisfy the requirements of Article 84 EPC. It held that neither the application itself nor its common general knowledge provided the skilled person with information on how to assess whether a disease meets the functional criterion set out in the claim or not. Furthermore, it stated that the finding of a 'selective occupation' of a receptor cannot in itself be considered as a therapeutic application. Defined, real treatment of a pathological condition would rather be required in order to make a technical contribution to the art eligible for patent protection.

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[7] *Cf.*, e.g. *Bristol-Myers-Squibb v. Baker Norton Pharmaceuticals,* [1999] RPC 253.

2.2.2 How to Sufficiently Prove the Medical Use?

It is frequently discussed how much data a European patent application would have to reveal in order to be considered to sufficiently support the hypothesis that the given compound can indeed be used to treat the indicated disease. An important decision in this respect is *T 1045/98, 'Eosinophilia/SCHERING'*. The Board had to decide whether a second medical use claim could be considered inventive when the patent application for the first time discloses in vivo animal experiments while the prior art only disclosed in vitro experiments. The Board concluded that inventive step has to be denied and stated:

> It is an accepted principle of the case law that, for the purpose of patent protection of a medical application of a substance, a pharmacological effect or any other effect such as an effect observed either *in vitro* or on animal models is considered to provide sufficient evidence of a therapeutic application if for the skilled person this observed effect directly and unambiguously reflects such a therapeutic application (*cf.* T 158/96 of 28 October 1998 and T 241/95, OJ EPO 2001, 103).[8]

Thus, in vitro experiments are generally sufficient to render plausible a hypothesized second medical use. The decision is fully supported by *T 903/05* which dealt with the prophylaxis and treatment of cancer with telomerase peptides and by *T 219/01. T 609/02* defines the limits for support by post-filing evidence. This EPO attitude also is in line with the recent decision 3Ni 21/04 of the German Federal Patent Court.

2.2.3 Novelty by Treating a Different Population

Many of the decisions dealing with the patentability of second medical use inventions had to deal with aspects of novelty assessment. As will become evident from the following discussion, novelty of a second medical use invention can be established by treating a different population, by identifying a new route of administration, by establishing a different technical effect or, *e.g.*, by contributing a specific treatment regimen that differs from the one previously applied in the art.

T 19/86, 'Pigs/DUPHAR', established that treating a different population can establish novelty. The claimed second medical use related to the vaccination of pigs:

> 1. Use of a live attenuated Aujeszky-virus for the manufacture of a vaccine for intranasally protecting maternally immune pigs against Aujeszky's disease.

'Maternally immune' means sero-positive. The closest prior art used life attenuated Aujeszky virus to protect sero-negative piglets by intranasal administration. Thus, the difference to the closest prior art was in the immunological population of animals to be treated. However, they were of the same species, the disease was the same and the medicine was the same.

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[8] *T 1045/98* at section 8.

The Board acknowledged novelty and said that a therapeutic application of a vaccine in a new and different class of the same animal is a second medical use within the principles set out in, *e.g.*, *G 5/83*, and is therefore patentable if such new use is inventive. Decision *T 509/04* dealt with a similar question.

2.2.4 Novelty by a New Route of Administration: T 51/93, 'HCG/SERONO'

The applicant claimed:

> Use of HCG for the manufacture of a non-depot medicament for use in the treatment by subcutaneous administration of infertility or male sexual disorders.

It was the route of administration that distinguished the claimed second medical use from the art. The Board acknowledged novelty stating that a different mode of administration for a pharmaceutical can indeed render a second medical use claim novel.

2.2.5 Novelty by a Different Technical Effect: T 290/86, 'Lanthanum salts/ICI'

The patentee claimed:

> The use of, as the sole oral hygiene agent, a non-oxidising aqueous composition which consists essentially of the unbound cation of the element lanthanum in the form of a water-soluble salt, said composition being free of any ingredients which precipitate the cation as a water-insoluble salt for cleaning plaque and/or stains from human teeth.

The Board concluded that when a prior art document and a claimed invention are both concerned with a similar treatment of the human body for the same therapeutic purpose (here: prevention of tooth decay), the claimed invention represents a further medical indication within the meaning of *G 5/83* if it is based on a different technical effect which is both, novel and inventive (here: use of compositions including lanthanum salts to reduce the solubility of tooth enamel vs. use of such compositions to improve the removal of plaque from teeth).

2.2.6 Novelty by Applying a Specific Treatment Regimen

Establishing patentability by finding a new and more effective treatment regimen has been an issue that was intensively debated in the European Patent Office and its contracting states, for instance, in the UK (section 2.3, infra) and in Germany (section 2.4, infra).

2.2.6.1 T 317/95, 'Gastrointestinal compositions/PROCTER'

While the Board 3.3.02 indicated in context with its assessment of novelty that it is questionable whether features characterizing a specific treatment regimen can contribute to novelty and further patentability of a second medical use claim, it denied inventive step so that no final answer was given. Patentee claimed:

> The use of a bismuth-containing agent and an H2-receptor blocking anti-secretory agent for the manufacture of a medicament for the treatment or prevention of

> gastrointestinal disorders in humans or lower animals, said treatment or prevention comprising administering to said human or lower animal a composition comprising, by weight, from 0.1 to 99.8% of the bismuth-containing agent, and administering to said human or lower animal a safe and effective amount of an H2 receptor blocking anti-secretory agent, the administration of the said two agents being effected within 5 minutes of each other.

The sole difference over the art was that the prescribed regimen for this treatment was slightly modified in that the administration of the two agents had to be effected within 5 minutes of each other.

2.2.6.2 T 1020/03, 'Method of administration/GENENTECH'

The invention to be decided on again concerned a new treatment regimen:

> Use of IGF-I in the preparation of a medicament for administering to a mammal so as to sustain its biological response in the treatment of a chronic disorder in the mammal wherein the administration pattern comprises administering a therapeutically effective amount of IGF-I to the mammal to provide an exposure to IGF-I that is continuous or at least once a day consecutively over a period of days …., then discontinuing said administration … over a period of days … .

Technical Board 3.3.04 considered the EPC1973 as it was then in place, the previous EBA decisions establishing patentability of second medical uses in principle, previous decisions of Technical Board 3.3.02, including *T 317/95* (see section 2.2.6.1, supra), and national case law that issued in EPC contracting states in great depth. It then concluded that the EPC does not exclude patentability of treatment regimen:

> Any use to which Article 52(4) EPC first sentence applies in circumstances where the composition has already been suggested for some therapeutic use, allows a second medical use claim to the preparation of the composition for that second medical use, *irrespective of in what detail that use was specified*, subject to the use being novel and inventive. For the purposes of novelty also under Article 54(5) EPC this depends on whether use for therapy is novel, irrespective of the detail with which the therapy is stated in the claim. (Headnote, emphasis added)

The terminology 'detail', 'specified' correlates with *G 1/83* and *G 6/83* and with the term 'any specific use' in new Article 54(5) EPC2000. Thus, it might be speculated that the treatment regimen will be found patentable unanimously by the Technical Boards of the EPO in consideration of the latter[9]. If this is conditioned by the new wording of the EPC, the national courts would have to respect patentability because of Article 138 EPC2000, too; see also section 2.1.3, *supra*.

Board 3.3.04 confirmed its decision in favor of patenting treatment regimen in *T 36/04*, *T 399/04* and *T 1074/06.*

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[9] On April 22, 2008, Technical Board 3.3.02 referred questions in T1319/04 to the Enlarged Board to find out whether treatment regimen ("once per day prior to sleep") could be considered a specific use patentable under Article 54(5) EPC2000.

2.3 Jurisprudence: UK on Treatment Regimen

2.3.1 Taxol

In the case *'Bristol-Myers Squibb Co. v. Baker Norton Pharmaceuticals Inc.*', the Court of Appeal took a stricter approach on patents for treatment regimen. Claim 1 read:

> Use of taxol and sufficient medications to prevent severe anaphylactic reactions for manufacturing a medicamentation for simultaneous, separate or sequential application of from 135mg/m^2 up to 175mg/m^2 taxol over a period of about three hours or less as a means for treating cancer and simultaneously reducing neutropenia.

In the patent specification, it was said that by reducing the infusion from 24 hours to 3 hours, a similar therapeutic effect could be achieved with less neutropenia. The Court of Appeal held that the invention was a method of treatment excluded from patentability by Section 4(2) UK Patents Act1977 (corresponding to Article 52(4) EPC) because the patent taught how to treat a patient rather than how to manufacture a drug.[10]

2.3.2 Alendronate

In 1997, Merck filed a patent application for a dosage regimen relating to Alendronate. Claim 1 (as amended in the UK proceedings) was for

> Use of alendronic acid … for the manufacture of a medicament for inhibiting bone resorption in a human…wherein such medicament is adapted for administration in a unit dosage form which comprises about 70mg of alendronic acid…according to a continuous schedule having a dosing interval of once weekly.

Justice Jacob mentioned that the key idea of the patent was to treat osteoporosis patients with 70mg of alendronate once a week rather than with 10mg once a day, which according to the patent caused less severe gastrointestinal problems. For this reason, Justice Jacob applied the Taxol decision and held – with regret – that in substance, the claim was for a method of treatment of the human body by therapy.[11] The Court of Appeal confirmed this view.[12]

2.4 Jurisprudence: NL On Treatment Regimen

On February 13, 2008 the District Court The Hague also had to decide on the validity of a Dutch part of a European Patent granted to Merck in its Alendronate series. Again, as in the UK, the validity of a second medical use claim relating to the use of a 70mg dosage form of alendronate in the treatment of osteoporosis in a continuous schedule having a once-monthly dosing interval was to be assessed.[13]

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[10] *Bristol-Myers Squibb Co. v. Baker Norton Pharmaceuticals Inc,* [2001] RPC 1, 3.

[11] *See, Teva v. Merck & Co Inc.*, [2003] EWHC 5 (pat) at paragraph 80.

[12] [2003] EWCA CIV 1545.

[13] Rechtsbank 's Gravenhage; HA ZA 07-1689, *Merck.Sharp Dohme v. Ratiopharm Nederland B.V.*

As in the UK, the District Court in the Hague was of the opinion that Merck was not able to show that a 70mg once-weekly dose of alendronate provides a technical advantage over once-weekly 40mg or 80mg doses provided in the prior art. Accordingly, the Dutch part of this patent was nullified since its subject matter was not considered inventive. Yet, the Dutch judges did not comment on whether second medical use claims comprising a 'dosage-regime' are to be considered as a non-allowable 'method of treatment'.

2.5 Jurisprudence: DE

2.5.1 The General Background for Patenting Medical Inventions in Germany

Historically, the German Patent Act (GPA) only allowed protection for methods for the production of chemical compounds and pharmaceutical compositions. Only the GPA1968 introduced absolute product protection for chemical as well as pharmaceutical compounds and compositions as of October 1, 1968. With the introduction of Section 3(3) into GPA1978, the option to also patent first medical uses was provided. As in the EPO, patent protection for second medical uses had to be established in Germany via jurisprudence. Accordingly, the German Federal Supreme Court (BGH) got its chance to conclude in its decision *'Benzolsulfonylharnstoff'* that such second medical uses are patentable even in light of Section 5(2) GPA1968 that excludes methods for the treatment of the human or animal body from patentability (just as Articles 52(4) EPC1973 and 53(c) EPC2000).[14]

In 1978, when the EPC came into force, the patentability of 'second medical uses' had to be considered in light of European harmonization. In the early 1980s, two cases were of particular relevance in this respect. In Germany the *'Hydropyridine'* case was pending and the Enlarged Board of Appeal of the EPO had to decide on Bayer's patent application which led to the decision *G 1/83*.[15] Both cases allowed second medical use claims. However, the particular format differed!

The EBA only allowed claims in the so-called Swiss-type format; section 2.1.2, supra. In contrast thereto, the BGH in *'Hydropyridine'* allowed the German-type format

> Use of compound X for the treatment of disease Y.

Interestingly, EPC2000 does still not allow claims in the German-type format since it is still regarded as a method of treatment.

2.5.2 BGH, 'Arzneimittelgebrauchsmuster': X ZB 7/03 (2005)[16]

According to this decision, Section 2, No. 3 of the German Utility Model Act does not exclude utility models for the use of known compounds for another medical

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[14] German Federal Supreme Court (Bundesgerichtshof, BGH), 1977 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 652 – *Benzolsufonylharnstoff.*

[15] German Federal Supreme Court (Bundesgerichtshof, BGH) 1983 GRUR 729 – *Hydropyridin.*

[16] German Federal Supreme Court (Bundesgerichtshof, BGH) 2006 GRUR 135 – *Arzneimittelgebrauchsmuster.*

indication. The BGH allowed the following use claim considering that it has at least elements of a product claim (see also section 3.3, infra):

> Use of serine-threonine-proteinphosphatase inhibitors for a pharmaceutical composition for the treatment and prophylaxis of arteriosclerotic diseases.

2.5.3 BGH, 'Carvedilol II', X ZR 236/01 (2006)[17]

In this decision, the BGH had the opportunity to consider the patentability of treatment regimen. The claim of the Main Request read:

> Use of carvedilol for the production of a medicament for the reduction of mortality due to congestive heart failure in combination with … and … , wherein the medicament is administered in starting dosage of …, followed by a duplication of the dosage… .

The claim of the second Auxiliary Request read:

> Use of carvedilol for the production of a medicament for the reduction of mortality due to congestive heart failure in combination with … and … , wherein the medicament *is provided such* that a dosage of …, followed by a duplication of the dosage … can be administered. (emphasis added)

The BGH held that the recited claim of the Main Request is accessible to patentability under Article 52(4) EPC1973 in spite of its treatment regimen features. However, the BGH investigated what the claim actually protected (as done previously for 'software inventions') and concluded that, since this was an unpatentable treatment conducted by the physician, therefore, the treatment regimen features cannot be considered in the assessment of novelty and inventive step.[18] Most importantly, however, the BGH set out positive guidance in its criticism. Accordingly, the situation in the assessment of patentability would be different if, as done in the second Auxiliary Request, the medicine would be claimed as provided in a purpose related form, *e.g.*, as a useful tablet size, with a specific instruction reciting the treatment regimen and printing on the package or with an instruction leaflet reciting the treatment regimen that is included in the package. The purpose-related form expressed by stating 'provided such that' or the like, would create technicality for the claimed 'treatment regimen' and allow to consider those features in the assessment of patentability. Thus, there can be a reasonable expectation that the BGH would allow patents for 'treatment regimen' and, thus, in principle take the position that was taken by Technical Board 3.3.04 in its decision *T 1020/03* (section 2.2.6.2, supra), if the claims are properly drafted. It is self-evident that such claims should already be prospectively incorporated when prosecuting the corresponding patent application in the EPO.

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[17] German Federal Supreme Court (Bundesgerichtshof, BGH) 2007 GRUR 404 – *Carvedilol II.*

[18] This appears to contradict from 'Hydropyridin' that specficially allowed a claim for what the physician would do!

3. Enforcement/Scope of Protection

The purpose-limited compound claim that is now available under Article 54(5) EPC2000 for second medical uses is believed to have substantially the same effect as a Swiss-type claim.[19] Both are characterized by a purposive element. In both cases, the plaintiff must establish the specific connection between the defendant's product and the claimed purpose, which will require the same sort of evidence. From a procedural point of view, a purpose-limited compound claim will not by itself be easier to enforce.

However, the scope of protection of the EPC's new purpose-limited compound claim may differ from the scope of protection of the traditional Swiss-type claim, in particular as regards the nature of activities which can be contested. To this end, the purpose-limited compound claim should be compared with German medical use claims, which for reasons set out below are similar to purpose-limited compound claims. Medical use claims as granted by the German Patent and Trademark Office (GPTO) and Swiss-type claims as granted by the EPO have been co-existing for more than 20 years. Although German courts and legal writers unanimously think that both claim formats have substantially the same effect[20], this has never been fully confirmed by the BGH.

3.1 German-type Second Medical Use Claims

3.1.1 Scope of Protection: Relevant History

As mentioned above, in *'Benzolsulfonylharnstoff'*,[21] the BGH allowed for the first time in 1977 a claim for the 'Use of benzolsulfonylurea or its salts for the treatment of diabetes'. Thus, the second medical use claim in the form 'Use of compound X for treating disease Y' was established. It is noteworthy that the German law did not contain an express exclusion of therapeutic methods from patentability then. The BGH had inferred such an exclusion from general principles in *'Glatzenoperation'* ('bald head surgery'),[22] dealing with a method which *exclusively* consisted of surgical steps to be performed by the surgeon. The BGH said that that the invention in *'Benzolsulfonylharnstoff'* was not excluded from patentability because its use was not restricted to activities performed by a physician but *also comprised* and covered activities at the industrial level, such as the formulation and packaging. By extend-

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[19] Basic Proposal, page 45; MEIER-BECK, 2007 GRUR 913, Footnote 26 ('presumably').

[20] Some of them more, some less decidedly so: German Federal Supreme Court (Bundesgerichtshof, BGH) 2001 GRUR 730, 731 – *Trigonellin ('substantially')*; MEIER-BECK, 2007 GRUR 913, Footnote 26 ('presumably'); KÖNIG, 2002 VPP-Rundbrief, 50, at 56; KÜHNEN, in: SCHULTE, Patentgesetz, Sec.14, note 87 (7th ed. 2005); MOUFANG, in: SCHULTE, Patentgesetz, Sec.1, note 163 and 274 ('similar scope of protection' and 'almost identical scope of protection') (7th ed. 2005); ASENDORF/SCHMIDT, in: BENKARD, Patentgesetz, Sec.5, note 57 (10th ed. 2006).

[21] German Federal Supreme Court – *Benzolsufonylharnstoff*, *supra* note 13.

[22] German Federal Supreme Court (Bundesgerichtshof, BGH) 1968 GRUR 142 – *Glatzenoperation ('Bald head surgery')*.

ing the scope of protection to industrial activities which otherwise would be regarded as mere preparatory acts, the BGH provided the basis for the industrial applicability and, consequently, for patentability. The BGH said that it made no difference that the claim also covered the actual non-industrial treatment from which the patentee might enjoin the physician because for satisfying the requirement of industrial applicability, the applicant in general only had to demonstrate one possibility to industrially exploit an invention without having to demonstrate that there cannot be non-industrial use.[23] As a consequence, the use of a substance for the treatment of a specific condition was considered to be fully patentable. The admissibility of second medical use claims was confirmed in *'Sitosterylgykoside'* in 1982.[24]

What kinds of activities are covered by such a claim? Before allowing medical use claims, the BGH had held in its decision *'Schädlingsbekämpfungsmittel'* ('insecticide') that a claim for the use of a certain agent as insecticide could only be infringed by *using* the agent as an insecticide. In contrast, the formulation of the substance as ready-to-use insecticide was considered to be a preparatory act which was not covered by the claim.[25] The BGH expressly deviated from that approach in the decision *'Benzolsulfonylharnstoff'* and included into the scope of protection preparatory activities which are purposively aimed at the industrial exploitation of the medical use invention by supplying the product specifically for the claimed purpose, namely by 'manifestly customizing' ('sinnfälliges Herrichten') the substance for the claimed purpose.[26] This includes a specific formulation, packaging or indications in the package insert or in advertisements. As mentioned above, it is exactly this extension of the protection to industrial preparatory acts preceding the actual therapy which paved the way for allowing second medical use claims. Otherwise, such a claim could not be considered as industrially applicable.

With the implementation of the GPA1981, the legal background for medical use inventions changed in two respects. First, therapeutic methods were expressly excluded from patent protection in Section 5(2),[27] which had the identical wording as Article 52(4) EPC1973.[28] Second, the liability for indirect infringement was amended to the effect that it covered preparatory acts in the run-up of threatening direct infringements without requiring directly infringing activities. Section 10 GPA1981 was modeled on Article 30 of the draft Community Patent Convention of

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[23] German Federal Supreme Court – *Benzolsufonylharnstoff*, *supra* note 13, at 653.

[24] German Federal Supreme Court (Bundesgerichtshof, BGH) 1982 GRUR, 548 – *Sitosteryl-glykoside*.

[25] German Federal Supreme Court (Bundesgerichtshof, BGH) 1970 GRUR, 361 – *Schädlings-bekämpfungsmittel ('insecticide')*; the actual claim was for an 'insecticide, containing a compound of a certain formula'; which was considered to have the same effect as a use claim.

[26] *See supra* note 21.

[27] According to the act implementing the EPC 2000 into German law of August 24, 2007 (2007 Bundesgesetzblatt (BGBl) I 2166), the wording of Section 5(2) of the Patent Act was included into the new Section 2a(1) No.2 GPA 1981.

[28] Caused by the Strasbourg Convention on the Unification of Certain Points of Substantive Patent Law signed in 1963.

1975,[29] which is why similar provisions are in force in various European countries. In the light of these changes, the BGH's case law was put into question by some authors. Nevertheless, the BGH maintained its policy established by *'Hydropyridin'*.[30]

3.1.2 Protection Against Preparatory Acts at an Industrial Level (Manifest Customization): Direct or Indirect Infringement?

As mentioned above, a German-type use claim is, according to the BGH's case law, *directly* infringed (already) by customizing the substance for such use, which can be thought of as a *preparatory* act for the actual patented use.

3.1.2.1 Indirect Infringement

One has to keep in mind that such an extension of the protection in terms of time is not a matter of course. Preparatory acts are also covered by the notion of indirect infringement: according to Section 10 GPA1981, a patent is indirectly infringed if someone offers or sells (not: manufactures) in Germany a means which relates to an essential element of the invention, although he knows, or although it is obvious, that the means is intended for the unauthorized use of the invention in Germany.[31] The liability for indirect patent infringement does not require proof that the contested activity results in a direct use as long as such direct use is *intended*. Co-operation between deliverer and customer is not required. Consequently, Section 10 GPA1981 aims at the patentee's protection against acts in the *run-up* of threatening direct infringements. Therefore, it was suggested that after the implementation of new Section 10 GPA 1981, it was no longer necessary to extend the protection of use claims to the preparatory act of manifestly customizing the substance for the claimed use.[32] Instead, such acts could and should only be considered as *indirect* infringement.

However, even if indirect infringement does not require the direct infringement to actually take place, it still requires that a direct infringement is possible. As mentioned above, medical use claims were only considered to be industrially applicable *because* they cover the (industrial) manifest customization. If a medical use claim did not *directly* cover such activities, it would hardly be possible to explain why a medical use claim is patentable at all.[33] In other words, if the use as such is not patentable, acts preparing such use, *i.e.* the delivery of customized products, cannot constitute an indirect infringement because there is no patentable invention which could be directly made use of. No direct infringement would be possible. *Haedicke* submits that the use of a *customized* substance for the claimed use is not excluded in

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[29] By means of the Gemeinschaftspatentgesetz (German Community Patent Act) of July 29, 1979, 1979 Blatt für Patent-, Marken- und Zeichenwesen (BlPMZ) 266 *et seq.*

[30] German Federal Supreme Court (Bundesgerichtshof, BGH) *supra* note 13.

[31] *Cf.* HÖLDER/SCHMIDT, 2006 EIPR 480 for an overview.

[32] KÖNIG, 2000 Mitteilungen der deutschen Patentanwälte (Mitt.) 10, 24; 2002 VPP-Rundbrief, 50, 57; HAEDICKE, 2004 Mitteilungen der deutschen Patentanwälte (Mitt.) 145, 147.

[33] *See supra* note 23.

accordance to Section 5(2)2 GPA1981,[34] which is why he claims the inclusion of preparatory acts is unnecessary for establishing the industrial applicability. This is not convincing because as a result, only the use of the customized product for the claimed use would directly infringe the medical use claim.[35] Consequently, the purposive element immanent to a medical use claim would have to be realized twice, namely in the customization *and* in the use. The wording of a medical use claim offers no basis for such a limiting interpretation. Interestingly, *Haedicke* is also of the opinion that deliveries of the non-customized product for the patented *use* (not: customization) indirectly infringe the use claim. This contradicts his argument that it is the customization which justifies patent protection.

3.1.2.2 Direct Infringement

For the above reasons, a German-type use claim can only be patentable if it directly covers the manifest customization. Protection under Section 10 GPA1981 only would not be in line with the hybrid nature of a use claim either. As it is similar to a use-restricted product claim,[36] also the manufacture/preparation of the customized product, *i.e.* the customization, must be covered,[37] otherwise the protection would stay behind the protection afforded to product claims. In this connection, it must be emphasized that the legal consequences of indirect infringement differ significantly from those of direct infringement. First, indirect infringement does not cover the manufacturing, but only the offer or sale for use in Germany. This is why the patentee could not prevent a manufacturer from preparing customized products in Germany for sale abroad if the patentee had to rely on indirect infringement only.[38] Second, damages could only be awarded to the extent to which the patentee could prove that the contested product is actually used for the claimed purpose.[39]

3.1.3 Off-label Use

The extension of the scope of protection to manifest customization and the notion of indirect infringement is closely linked to the aspect of off-label use. Often, a physician prescribes a generic drug for treating a certain disease for which the generic drug was not specifically offered, approved or customized, although the use of such drug for such treatment is protected by a second medical use patent. This is often the case for cancer drugs. It significantly diminishes the value of a second medical use patent. The question is how patentees can stop such activities.

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[34] Corresponds with Art. 53(c) 2 EPC2000.

[35] This is expressly supported by KRASSER, Patentrecht, 809 (5th ed. 2004).

[36] *See infra*, at section 3.3.

[37] Manufacture and preparation in a Swiss type claim is understood to have the same meaning as the manifest customization; *see infra* note 50.

[38] German Federal Supreme Court (Bundesgerichtshof, BGH) *supra* note 13, at 731; BRANDI-DOHRN, Die Schutzwirkung von Verwendungsansprüchen, in: ANN ET AL. (eds)., Festschrift für König 43 (2003).

[39] *Cf.* German Federal Supreme Court (Bundesgerichtshof, BGH) 2005 GRUR 848, 854 – *Antriebsscheibenaufzug*.

3.1.3.1 Direct Infringement by Physicians

Where a physician prescribes a drug for a patented medical use, he uses the drug for treating the condition, independently of whether the drug was manifestly customized for that purpose on an industrial level. Thus, he makes literal use of a claim directed at the use of the substance for treating the disease and could be sued for such use. As mentioned above, it is not required that the physician prescribes a drug which was *customized for the patented purpose* by a non-authorized supplier.[40]

The position has been taken that after methods of treatment were expressly excluded from patentability,[41] a clear line had to be drawn between the industrial preparative supply activities and the therapeutic activities performed by a physician, which must not be restricted. Accordingly, medical use claims covering both industrial and non-industrial activities would not be allowable at all. If they were, however, granted in the generality they are, it would have to be made sure that physicians cannot be sued for a use that, taken as such, is not patentable. It was accordingly proposed that the physician might rely on a statutory exclusion from patentability as a defense against infringement claims.[42] In fact, the Düsseldorf District Court ruled that where a doctor prescribed two substances which form a composition of which the first medical use is patented, the prescription was outside the effect of the patent, although making use of it.[43] In contrast, the District Court Hamburg[44] and the Upper District Court Munich[45] held that a doctor acted commercially and was thus not exempted from patent infringement. We believe that the latter view is more appropriate. There is no such defense as a 'non-patentable use'. The problem arises because the legislator decided to protect the physician's freedom of therapy by an exclusion of patentability rather than by a use privilege. Where an invention can be applied industrially and non-industrially, it is nevertheless patented without distinction. Since the physician's activity is commercial, the physician cannot rely on the private use privilege.[46] It is not self-evident that physicians must be protected against patent infringement suits. Physicians must in general respect patents in the medicinal sector, *e.g.* for compounds and devices. Why should this be any different for second medical use inventions? If, however, one wished to protect them, this could only be achieved by implementing a specific therapy exemption rather than an exclusion from patentability.

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[40] *See*, *supra* note 35.

[41] Under section Section 5(2) of the German Patent Act, which corresponds to Article 53(c) EPC2000.

[42] KÖNIG, 2002 VPP-Rundbrief 50, at 57.

[43] The decision is referred to in the published appeal judgment (1996 Mitteilungen der deutschen Patentanwälte (Mitt.) 87), by which the request for interim relief was rejected for other reasons.

[44] 1996 Mitteilungen der deutschen Patentanwälte (Mitt.) 315 – the case however concerned a claim for the first medicinal indication.

[45] 1999 Mitteilungen der deutschen Patentanwälte (Mitt.) 223, 228 – Verletzung eines Verwendungspatents (infringement of a use patent).

[46] *König* had considered the physician to be exempted from patent protection under the private use privilege (2000 Mitteilungen der deutschen Patentanwälte (Mitt.) 10, 25). This is, for the reasons set out, inappropriate.

3.1.3.2 Indirect Infringement by Suppliers

The off-label use problem concerns not only physicians, who are, as a matter of policy, hardly ever sued by proprietors of pharmaceutical patents, but also drug suppliers who may know that their product is being used off-label.[47] In these cases, suppliers exploit the second medical use invention without customizing the product. It is mandatory that the patentee must be protected against such activities. Suppliers are in general liable for indirect infringement of a second medical use claim if it is known or obvious to them that the person ultimately intending to use the product for the claimed purpose without being entitled to do so.[48] As the physician's use for therapy is covered by the claim,[49] the mere supply of the product for said purpose can indirectly infringe the second medical use claim even if the product is not manifestly customized prior to use. This is, by the way, yet another reason why the physician's activity must in general be covered by the use claim. Otherwise, supply for off-label use would not be actionable as indirect infringement because the supply could not be intended for direct use. This should even apply if the physician could rely on the 'non-patentable use' defense because in this case Section 10(3) of the GPA1981, according to which the indirect infringer cannot rely on his customer's private or experimental use privilege, would have to be applied mutatis mutandis. In order to avoid liability for obvious off-label use, drug suppliers are – under general principles – arguably required to take measures against infringing direct use, *e.g.* warning notices in the leaflet or even on the package.

3.2 EPC1973: Swiss-Type Claims for Second Medical Use – Chances and Problems in Infringement Litigation

In contrast to a claim in the German-type format, claims allowed under EPC1973 related to the use of a compound for the manufacture of a drug for the treatment of a certain disease.

3.2.1 Manifest Customization

Such a manufacturing use claim aims, by its very wording, at the preparation of a drug rather than at its administration. As the preparation/manufacture is understood to have substantially the same meaning as the manifest customization as defined in German jurisprudence,[50] such a claim covers the same preparatory acts done at the industrial level. Presumably this is why German courts and authors unanimously think that both types of claims have the same, or at least substantially the same scope of protection.[51]

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[47] For indirect patent infringement, it is not necessary that the supplier and the customer 'agree' on such use (*cf.* HAEDICKE, *supra* note 32, at 147); it suffices if the customer's intention is known or obvious to the supplier.

[48] *Cf.* section 3.1.2.1 above.

[49] *Cf.* section 3.1.3.1 above.

[50] German Federal Supreme Court (Bundesgerichtshof, BGH) 2001 GRUR 730, 731 – *Trigonellin.*

[51] *Cf. supra* note 20.

3.2.2 Off-label Use

However, there appears to be a difference for off-label use. While it can be argued that a physician prescribing a certain substance for a claimed purpose uses said substance for treating the disease, he can arguably not be considered to *prepare* or *manufacture* a medicine. Only if the prescribed product is customized for the claimed use, it can be protected as a direct product of the manufacturing or customizing process, in which case it must not be prescribed by the doctor (for whichever purpose). In *T 1020/03;*[52] the Technical Board of Appeal – being aware of its lack of 'jurisdiction to consider questions of patent infringement'[53] – said with respect to claims in the Swiss-type format that 'the feature supporting novelty and inventive step will be the new treatment, but only the preparation of the composition is covered by the allowable claim, not the use of the composition for therapy':[54] The same may be inferred from the Board's statement that

> 'The Enlarged Board decision[55] merely allows obtaining of a patent covering the manufacture of a medicament for a further medical use. Even if the proprietor of such a patent can enforce it against a competing manufacturer or dealer…the patent will still not allow the patentee to interfere in the excluded area of the medical treatment itself.'[56]

The Board thereby implies that a physician falls outside the scope of protection because it uses the substance for *therapy* rather than for *manufacturing* a medicine. On the other hand, the Board – doubtfully – assumes that physicians are in general exempted from patent protection under national law because it was 'necessary to protect physicians from being sued for patent infringement for merely prescribing a composition for a course of therapy' (paragraph 16 of the reasons). While this appears to contradict the implication that physicians do not make use of a Swiss-type claim because they do not manufacture/prepare the medicine, the arguments can be interpreted to be meant as two independent reasons as to why Swiss-type claims cannot interfere with the physician's freedom to treat patients. As a consequence, a supplier offering or delivering a non-customized drug which the supplier knows is intended for treating the condition specified in the claim would not be liable for indirect infringement because no one intends to make direct use of the claimed invention by customizing the drug prior to use. Accordingly, the patentee would not be protected against such deliveries.

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[52] *Supra*, at 2.2.6.2.
[53] Paragraph 12 of the reasons.
[54] Paragraph 21 of the reasons.
[55] Reference is made to G 5/03.
[56] Paragraph 23 of the reasons.

3.3 EPC2000: Purpose-limited Compound Claims for Second Medical Uses – Any Changes for Infringement Litigation?

Purpose-limited compound claims were known in Germany before the BGH allowed second medical use claims in its *'Benzolsulfonylharnstoff'* decision.[57] In its decision *'Sistosterylglykoside',* the BGH even required, for reasons of clarity, that the applicant of a medical use invention claims the medical use rather than a purpose-limited compound.[58] The BGH said that a purpose-limited compound claim was characterized by the use of the compound for said purpose[59] and expressly stated that both claims have substantially the same scope of protection.[60] The BGH has recently expressly pointed out that a use claim does not concern a 'classical' method because its subject matter was based on the suitability of a substance for a certain purpose, *i.e.* on characteristics that are immanent in the substance.[61] Ultimately, the subject matter of a use claim was the substance as such in a certain use. Therefore, the BGH considered use claims to have at least elements of a product claim.[62] In general, a product claim is infringed by using the product. In the case of a purpose-limited product claim, the use of the product for the claimed purpose is the relevant use which falls directly into the scope of protection. It is not required that the product was manifestly customized for that purpose. Otherwise, the purpose-limitation would have to be met twice. This is confirmed by case law relating to first medical use claims, which were granted already before the implementation of the EPC2000 as purpose-limited compound claims. These claims can be considered to be realized by a physician prescribing the substance for therapeutic purposes.[63] A purpose-limited compound claim as now admissible under Article 54(5) EPC2000 will, for this reason, have the same scope of protection as a medical use claim in the German-type format. It is likely that after the entering into force of the EPC2000, a purpose-limited compound claim covers, unlike a Swiss-type claim, off-label use and, under the notion of indirect infringement, offers and deliveries of non-customized products suitable and intended/used therefore.

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[57] *See supra* note 21.

[58] *See supra* note 24.

[59] German Federal Supreme Court (Bundesgerichtshof, BGH) 1987 GRUR 794, at 795 – *Antivirusmittel ('anti virus agent').*

[60] German Federal Supreme Court (Bundesgerichtshof, BGH) 1982 GRUR 549 – *Sitosterylgykoside*; German Federal Supreme Court – *Antivirusmittel*, *supra* note 57, at 796.

[61] German Federal Supreme Court (Bundesgerichtshof, BGH) 2006 GRUR 135 – *Arzneimittelgebrauchsmuster.*

[62] *Id.*

[63] LG München, cited according to OLG München, 1999 Mitteilungen der deutschen Patentanwälte (Mitt.) 212, 213; the question of making use according to the patent is independent of the question whether the physician can rely on a defense.

3.4 Enforcing First Medical Use Claims

Purpose-limited compound claims for the first medical use have existed from the beginning of the EPC. The EPC2000 leaves the legal situation unchanged.[64] The only, though substantial, legal difference of a purpose-limited compound claim for a second medical use as now admissible is that the first medical use claim is not limited to a specific indication by definition, which is why an infringement action requires less detailed evidence. In all other respects, the enforcement is similar.

As mentioned above, the most striking difference between a Swiss-type claim and a purpose-limited compound claim for a second medical use is that the latter covers off-label use whereas the former does not. From a factual point of view, a purpose-limited compound claim for the first medical use will, of course, hardly ever be infringed by 'off-label' use, because there would be no drug which is patent-free but for the intended specific purpose. In these cases, there is no patent-free drug (and no label) at all. The claimed substance could only be used 'off-label' if the physician prescribed, *e.g.*, an insecticide for treating a disease, a scenario which for obvious reasons will hardly ever occur.

In summary, Article 54(5) EPC2000 incorporates into the EPC what has been developed in the EPO's jurisprudence and thereby improves the position of Patentees for second medical use inventions in two respects.

First, in connection with Article 138 EPC2000, it provides legal certainty since national courts will now have to respect patentability of second medical use inventions in the new European format. This may even encompass treatment regimen claims, particularly when drafted by language casting the 'treatment regimen' into a feature of the composition itself (*e.g.*, 'provided such that', 'prepared for' or 'customized for').

Second, the new European purpose-limited compound claim format is likely to improve protection against off-label use and, under the notion of indirect infringement, offers and deliveries of non-customized products suitable and intended/used therefore.

[64] *Cf. supra,* at 2.1.1.

Purpose and Limits of the Exclusion from Patentability of Medical Methods, Especially Diagnostic Methods*

Rudolf Kraßer

1. Genesis and Substance of the Excluding Provisions in the European Patent Convention (EPC)

1. As early as 1964, during the preliminary stages of the plan to introduce a European patent for the Common Market, the European Economic Community (EEC)'s working group on patents resolved to recognize the principle of the free exercise of the medical profession by means of a restriction on patentability.[1] This led to a proposal to exclude methods for treatment performed on the human or animal body from patentability. The proposal was expanded in the course of consultations to include methods of diagnosis, and in its final wording referred to 'methods for treatment … and diagnostic methods.' In this form it was presented to the Luxembourg Inter-Governmental Conference to Establish a European System for the Grant of Patents.[2] At this conference, in line with earlier proposals, a patent ban was instated that explicitly referred to human as well as veterinary medicine.[3] Diagnostic methods were further specified by the addition of the phrase 'practiced on the human or animal body.'[4]

2. The 1973 Munich Diplomatic Conference advised against including methods for medical treatment on the list of subject matter and activities not to be deemed inventions, as the former are inventions that merely lack industrial applicability.[5] This resulted in Article 52(4) of the 1973 EPC, which stipulated that surgical or therapeutic methods of treating the human or animal body and diagnostic methods carried out on the human or animal body are not industrially applicable inventions within the meaning of Article 52(1) EPC.

The German legislature placed even greater emphasis on the reference to industrial applicability by adding a provision in line with Article 52(4) to its definition of this condition for patentability (Section 5 of the 1978/1981 Patent Act).

3. This linking of the patent ban on medical procedures with the requirement of industrial applicability was recognized as systematically incorrect at the Diplomatic

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1 NACK, in: Europäisches Patentübereinkommen – Münchner Gemeinschaftskommentar, Art. 52, marginal No. 18, 23 (28th issue, 2005); VISSER, in: Festschrift für Gert Kolle und Dieter Stauder 469, 471 (2005).

2 NACK, *supra* note 1, marginal No. 24.

3 NACK, *supra* note 1, marginal No. 34 *et seq.*; VISSER, *supra* note 1, at 472 *et seq*.

4 NACK, *supra* note 1, marginal No. 36; VISSER, *supra* note 1, at 472.

5 NACK, *supra* note 1, marginal No. 44; VISSER, *supra* note 1, at 473.

Conference for the Revision of the EPC held in November of 2000. Therefore, and in consideration of Article 27(3)(a) of the TRIPs Agreement, the respective procedures were added to the list of non-patentable inventions contained in Article 53 of the EPC. Article 53(c) EPC now lacks all reference to industrial applicability, instead stipulating that no European patent will be granted for the procedures previously named in Article 52(4).

2. The Patent Exclusion and the Requirement of Industrial Applicability

2.1 General Remarks

1. Even under the 1973 EPC, when patent protection was sought for medical procedures, it was not relevant whether the industrial applicability required by Article 57 was truly lacking or not. Rather, Article 52(4) directed that such methods without exception be deemed not industrially applicable. If in certain cases they were in fact susceptible of industrial application, this definition constituted a *legal fiction*[6] used by the legislator to require that a prerequisite on which the applicability of a provision depends be seen as given or lacking, whereas without that fiction the requirement would be lacking or given, respectively.

So that such fictions do not appear to be arbitrary, they must serve a commendable legislative purpose. As concerns excluding medical treatment methods from patentability, this purpose consists in keeping the activities of physicians and other healthcare professionals free of the constraints that could arise from a patent holder's assertion of his exclusive rights.[7] The revised wording and classification of the patent exclusion provision achieved by the 2000 reform (*see* 1., No. 3 above) now aims to fulfill this purpose without resorting to a legal fiction. However, the content and scope of the patenting ban have not been altered, much less extended.

2. In applying Article 52(4) of the EPC, courts did not always clearly see that industrial applicability was not the real issue.[8] This was first made manifest in the

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[6] EPO, October 14, 1987, Case T 116/85, 1988 OJ EPO EPO 441, paras. 3.3, 4.1, 4.3, 7– *Pigs I/ WELLCOME*; EPO, July 30, 1993, Case T 182/90, 1994 OJ EPO EPO 614, para. 2.1 – *Blood flow/SEE-SHELL*; Referral of the President of the EPO to the EBA of December 29, 2003, 2004 OJ EPO 229, 231.

[7] In the EPO, September 29, 1999, Case T 35/99, 2000 OJ EPO 447 – *Pericardial access/ GEORGETOWN UNIVERSITY*, the Board says of medical procedures (citing other previous decisions in support): 'As regards the European Patent Convention, the policy behind the exclusion of the methods set out in Article 52(4) EPC was clearly to ensure that those who carry out such methods as part of the medical treatment of humans or the veterinary treatment of animals should not be inhibited by patents.' The same assessment is contained in the referral of December 29, 2003, *supra* note 6, at 231.

[8] Examples, besides those decisions discussed in 2. below, are: EPO, September 25, 1987, Case T 385/86, 1988 OJ EPO 308, para. 3.5 – *Non-invasive determination/BRUKER*; Federal Patent Court (Bundespatentgericht), January 19, 1984, 26 Entscheidungen des Bundespatentgerichts (BPatGE) 110 and Federal Patent Court (Bundespatentgericht), December 8, 1994, 35 Entscheidungen des Bundespatentgerichts (BPatGE) 12, 15.

problem of the patentability of a second[9] medical use (or indication) of state-of-the-art substances.[10]

For the first use of such a substance, under Article 54(5) of the 1973 EPC (Article 54(4) of the 2000 EPC), it was possible to obtain patent protection in respect of that use, thus avoiding conflict with the Article 52(4) exclusion of treatment methods from patentability. Since there was no such special provision for second and further uses, patent protection of these uses seemed to go against Article 52(4). The same problem arose under the national laws that contained provisions corresponding to Articles 52(4) and 54(5) (in Germany, Sections 5(2) and 3(3) of the Patent Act).

2.2 Case Law on Second Medical Use

1. The German Federal Supreme Court did not hold the patent ban on treatment methods in Section 5(2) of the German Patent Act to stand in the way of granting patent protection for a second medical indication. It therefore permitted such procedures to be patented as *methods for treating a disease*.[11] In its findings, the Court explained that medical uses of substances were only excluded from patentability – as under former German law – when these substances lacked industrial applicability. The Court was able to consider this applicability as given, in accordance with its previous case law, when the substance involved had to be prepared for medical use in a step that normally took place in a commercial facility. The Court did not seem concerned about the legal fiction that prescribes the lack of industrial applicability. By referring to previous law, the Court basically rendered the new provision with its explicit exclusion meaningless, and instead maintained a line of argument developed in an earlier decision. This decision concerned a surgical procedure to treat baldness that could only be carried out by a physician. Because the profession of physician, according to the applicable provisions, is not a trade, it was possible to argue that the procedure had no industrial application and thus did not fulfill one of the requirements for patentability prescribed by the patent law then in force.[12] However, this argument obfuscates the actual purpose of the patent ban that derives from it. That purpose is to keep the use of medical procedures from being restricted by patent-law claims, in the interest of public health. The German Supreme Court referred to this interest in connection with the non-commercial nature of the medical profession: 'Human health and the duties entrusted to doctors to preserve it make up the common socio-ethical reason why the medical profession is not a trade, but also why doctors must on principle be free of any constraints on their use of therapeutic methods.' Despite emphasizing this interest in keeping the profession

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[9] For third and further uses, the same problem exists as for the second; these will therefore not be discussed separately.

[10] The discussion on substances below applies as well to compositions.

[11] German Federal Supreme Court (Bundesgerichtshof, BGH), September 20, 1983, 1983 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 729 – *Hydropyridin*.

[12] German Federal Supreme Court (Bundesgerichtshof, BGH), September 26, 1967, 1968 GRUR 142 – *Glatzenoperation*.

unfettered, however, the court did not consider it sufficient, on the basis of the provisions then in force, for denying patent protection to the claim in this case.

To ensure that this finding was in accordance with the law, the Court used a patent requirement anchored in that law as a bridge over which to reach the result that it held to be correct due to its evaluation of the interests concerned. Yet in the process, the question remained open of whether this bridge would hold the weight of other cases and whether a patent ban derived from the lack of industrial applicability would make it possible to include all – but no more than – that subject matter that must be excluded from patentability in the interest of public health.

The Patent Office and courts in Germany could have considered themselves freed from such problems by the 1978 introduction of an explicit exclusion of medical procedures from patent protection – and yet the Supreme Court, in the case of second medical use, preferred to more or less ignore this revision, because it felt that it forced the Court to deny patent protection without proper justification.

2. The EPO's Enlarged Board of Appeal (EBA), unencumbered as it was by any previously expressed opinion on an earlier provision, took the patent ban on medical procedures more seriously, declaring it impermissible to grant European patents with claims directed to the use of a substance for the therapeutic treatment of humans or animals. It found a way around the ban, however, in permitting claims for the 'use of a substance … for the manufacture of a medicament for a specified new and inventive therapeutic application.'[13] Thus the Board steered clear of the obstacle of Article 52(4), but was compelled to acknowledge novelty in a by no means new manufacturing process by virtue of the new use of its resultant product. The Board found support for this interpretation in Article 54(5), according to which a substance's being comprised in the state of the art does not prevent its being patented for a first medical use. The EBA did not draw the opposite conclusion (argumentum e contrario) from this that further uses could not constitute a basis for patentability. Rather, it viewed the special provision as acknowledgement that new medical applications of state-of-the-art substances were worthy of protection. Its intention was therefore to open up patent protection for second and further uses of this type as well. In doing so, the EBA wished to remain in accord with the wording of Article 52(4) while also reserving the Article 54(5) purpose-based protection of a *product* for the first medical use. This is why it referred the second indication to the purpose-based protection of a *manufacturing process*. This roundabout path via protecting the product of a process, as is obligatory for all signatories of the EPC according to Article 64(2), ultimately achieves product protection, which is purpose-based insofar as it only takes effect if a product is manufactured using the process characterized by its intended use, and is thus manufactured *for this purpose*.

[13] EPO, December 5, 1984, G 1/83, 1985 OJ EPO 60 – *Second medical use/BAYER*; likewise the decisions G 5/83 and G 6/83 *id*., at 64, 67.

3. Rationales for Excluding Medical Procedures from Patentability

3.1 Exclusion of Non-Commercial and Non-Industrial Activities?

In the findings in its decision on second medical indication, the EBA pointed out that it is the purpose of Article 52(4) to keep the non-commercial and non-industrial activities in the field of human and veterinary medicine unfettered by patent claims. It did not, however, go on to explain why the solution at which it arrived fulfills this purpose. Answering this question would seem to require clarification of which activities in the field are industrial or commercial, and which are neither industrial nor commercial. Each of these terms has various different connotations, however. Which of these is applicable is revealed neither in the EPC nor by the EBA. If, for instance, one takes every activity aimed at economic revenue as being commercial, then it will be hard under today's conditions to find a single activity in the medical field that is not commercial. The interest in free practice recognized in the EPC, however, is maintained even when a person who becomes active in the medical field intends to earn money. An alternative solution might be to deem only activities of *doctors* non-industrial and non-commercial, because these are not considered as carrying out a trade. Assuming the latter would indeed be sufficient to uphold the principle of free practice for a large part of the profession. However, it is foreseeable that many other practitioners of medical activities would invoke this principle for their own area of activity.

It is therefore doubtful whether it is even correct to view the protection of certain activities from patent-law constraints as an interest of those who carry out these activities. It is much more plausible to explain it as being in the interest of *patients.* The patients should not have to tolerate treatment with a promising new procedure being denied them due to patent protection, or postponed pending the grant of a license. This is why the *person who deals directly with a patient* in the course of performing medical activities must be free to choose which means of treatment to use. A patient must likewise be free to choose the person to treat him. Whether or not this person's activity can in any way be considered industrial, commercial, or neither is irrelevant to the patient. This reasoning makes it clear, however, that this distinction is not appropriate to sensibly delimit the extent of application of the patent exclusion of medical procedures.

3.2 Different Effects of Product and Process Patents

In contrast to medical procedures, products for use in such procedures, such as medicines, are not excluded from patentability, as sentence 2 of Article 53(c) (ex 52(4)) of the EPC clarifies. This different treatment under patent law is justified by the difference in effect between product and process patents.

Every specimen of a patented product that is put on the market by or with the permission of the patent holder may legally be further marketed and used for any purpose, because this act of putting on the market exhausts the exclusive rights conferred by the patent. Therefore, there is no danger that a patent granted for a product

will jeopardize the interests of patients by hampering medical activities, insofar as these products can be procured quickly and in sufficient quantity when needed.

For the use of a process, on the contrary, the permission of the patent holder is required in every single case. In non-medical fields, permission can of course usually be obtained in advance for a number of uses. This is how businesses will proceed whose plans call for the use of a procedure for which a third party holds a patent. With medical treatment methods, however, such timely planning is only seldom possible, as the need to apply a certain method often arises unforeseeably. If they are to cover all their bases, everyone who might at some point need a patented medical treatment method, particularly doctors and clinics, would have to secure licenses in advance for all process patents relating to their field of medicine. The effort involved would be unreasonable and even futile in some cases, because not all patent holders are willing to grant licenses, and because some of the cases for which a license had been obtained would never or only seldom arise. Furthermore, it is not acceptable for a patient to be denied optimal medical care because the person or institution from which he expects this care has not obtained in advance a license to use a necessary procedure. For these reasons it is justified to exclude treatment methods, as opposed to the products used in those methods, from patentability.[14]

3.3 Differences Between Purpose-bound Protection of Substances and of Processes

1. The patent claims admitted by the EPO for the protection of second medical use (*see* 2.2 above) ultimately have an effect on the products of the process to which they refer. If these are available on the market when need for them arises, there is no risk that a patent will have an adverse effect on medical activities. The protection granted is thus comparable with that of a purpose-bound product patent. The EPC now expressly grants this protection for specified medical uses of state-of-the-art substances (Article 54(5), revised version), even when this is the second or further use of this kind. The detour the EBA was compelled to take has thus become superfluous.

2. According to the solution reached by the German Federal Supreme Court, the subject matter of the patent is a *process* for treating an illness using a state-of-the-art substance (see 2.2., No. 1 above). If sufficient quantities of the substance that has been prepared for use in this method are readily available as a medicine when needed, the unrestricted exercise of the medical activities that use this medicine would seem to be sufficiently guaranteed. However, the permission of the patent holder is required for the use of the patented process (*see* 3.2 above). Once a medi-

[14] The question of whether any other solution is possible without jeopardizing the legitimate interests of patients cannot be elaborated here. *Cf.* for example APPEL, Der menschliche Körper im Patentrecht 183 *et seq.* (1995), BOSCH, Medizinisch-technische Verfahren und Vorrichtungen im deutschen, europäischen und amerikanischen Patentrecht 216 *et seq.* (2000); MOUFANG, in: Europäisches Patentübereinkommen – Münchner Gemeinschaftskommentar, Art. 52, marginal No. 352 (28th issue, 2005); THUMS, 1995 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 277, 284 *et seq.*

cine has been put on the market without provisos, every legitimate purchaser of that medicine can be presumed to have that permission. Still, it is in the power of the patent holder to withhold or name additional terms for his consent. And yet the German Supreme Court does not act according to this conclusion. In the Court's view, a patent forces a doctor who would like to use the medicine to avoid acquiring or prescribing such products (which have been prepared for patent-conform use) which have been put on the market without the permission of the patent holder. It can be concluded from this that products that have been put on the market with such permission may be used in conformity with the patent without obtaining special permission from the patent holder. This in effect attributes the effect of purpose-based protection of a substance to the 'process' patent granted for its second medical indication.[15] This corresponds to the effect of a patent whose subject matter, according to the solution reached by the EBA, is a process to produce a medicament for a second medical indication (*see* 3.3., No. 1 above). The insertion of a provision corresponding to Article 54(5) of the 2000 EPC in the German Patent Act (Section 3(4) in the version of August 24, 2007) thus has changed nothing about the previous legal situation, but has merely done away with a makeshift solution that was tenuous for various reasons.

4. Delimiting the Patent Ban on Diagnostic Methods

4.1 Need to Keep Medical Activities Free of Patent Constraints

With regard to diagnostic methods as well, the patent ban in Article 53(c) (ex Article 52(4)) of the EPC and in Section 2(a)(1)(2) (ex Section 5(2)) of the Patent Act has the purpose of keeping medical activities free of restrictions that could arise from patents. Such restrictions need not be feared as long as the results that can be produced with a patented diagnostic method are available on the market when necessary. This requires that enough facilities exist with the capacity and expertise to carry out that diagnostic method on demand within a time frame that allows for reliable results. It must also be possible to permanently document the results and communicate them to those medical professionals who want to make use of them without actually participating in the procedure.

These requirements are to a large extent fulfilled when it comes to analyzing fluid or tissue samples that have been extracted from a human or animal body for the very purpose of analyzing them, can be transported outside that body without alteration to the analyzing facility, and are completely used up in the course of that analysis. There are numerous university and other research institutes in the public sector, as well as commercial operations in the private sector, that provide these services. Certainly, these facilities must acquire the necessary licenses if the processes they need for their analysis are patented for third parties. However, because they are designed to analyze large numbers of the same types of samples, it is as a rule practicable, economically expedient, and reasonable for these facilities to

[15] More details in KRASSER, Patentrecht 806 *et seq*. (2004).

obtain licenses in advance for the patented processes that they have the equipment and the personnel to carry out.

Patent protection therefore poses no such threat to this type of medical analyses that would necessitate their exclusion from patent protection. This explains why a patent ban only exists for those diagnostic methods that are *practiced on the human or animal body*. However, there exist many such methods that are standardized and – because the instruments alone constitute a huge investment – are provided by specialized institutions to which medical professionals can refer their patients for the purpose of having a certain test done. An example of this is radiographic analysis. This might prompt the question whether a need to keep medical activities free of patent constraints must be recognized in all cases of diagnostic methods that are carried out 'on the body'. Still, one must assume that the patient has a legitimate interest that the medical professional he has consulted will actually be the person to perform the analysis. Whenever this is possible – and it often is – constraints due to patents must be avoided. Be that as it may, the applicable provisions must be observed, even if one considers them in need of amending.

4.2 Narrow Interpretation of the Term 'Diagnostic Method'

One way to radically restrict, indeed to render fully meaningless, the current patent ban on diagnostic methods[16] is demonstrated by decisions stating that a patent claim is only directed to a diagnostic method when it includes the actual diagnosis, that is, a conclusion based on an examination result that a certain disease is present or not.

According to EPO decision T 385/86,[17] only those diagnostic methods may be excluded from patentability whose results make it immediately possible to decide on a course of medical treatment. It must therefore be assessed whether the method used contains all the steps necessary to arrive at a medical diagnosis. Processes that only provide interim results do not fully qualify as diagnostic methods within the meaning of Article 52(4), according to the EPO, even if these results can be used to make a diagnosis. The steps leading to a diagnosis include, in particular, comparing test results with normal values, determining a significant deviation from the norm, and attributing this deviation to a certain clinical picture (the 'phase of deductive medical decision'). If at least one of these three steps is missing, the process is not a diagnostic method.

Likewise, in the view of the German Federal Patent Court, a diagnostic method necessarily includes the deductive step of making a diagnosis, defined as an evaluation made by a medical professional by deductive reasoning using data already collected in tests for detecting and systematically designating a disease.[18]

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[16] Therefore critical on this point (among others): MOUFANG, 1992 GRUR Int. 10, 22 and 2005, *supra* note 14, at marginal No. 389 *et seq.*; THOMAS, 34 IIC 847, 860 (2003); VISSER, *supra* note 1, at 482 *et seq.*

[17] EPO, September 25, 1987, *supra* note 8; for references to several decisions of the same tenor, see Referral of December 29, 2003, *supra* note 6, at 234 *et seq.*

[18] Federal Patent Court (Bundespatentgericht), December 8, 1994, 35 Entscheidungen des Bundespatentgerichts (BPatGE) 12, 15; likewise Federal Patent Court (Bundespatentgericht), July 11, 2006, 2007 GRUR 133, para. II.3.c.

4.3 Activation of the Patent Ban in Cases Requiring Medical Supervision?

The EPO has declared a method not patentable that included a step involving risks to the patient and therefore necessitating supervision by a medical professional.[19] Basing its reasons on the decisions of the EBA on second medical indication (*see* 2.2., No.2 above), according to which only non-commercial and non-industrial activities in the field of human and veterinary medicine are to be kept free of restrictions by patent rights, the Technical Board of Appeal held it to be legitimate not to deduce a diagnostic character from the ultimately diagnostic purpose of methods whose steps are as a whole not of a medical but of a technical nature. This, said the Board, does not apply for methods carried out for diagnostic purposes whose essential steps must be carried out by trained medical personnel or under a doctor's supervision. This remains the case even when the necessary supervision is carried out by a different specialist than the one who makes the final diagnosis. Thus a diagnostic character within the meaning of Article 52(4) of the EPC can be assumed simply from the medical character of some of the steps of the method, without regard to the actual act of diagnosis, which was not the subject matter of the method in the case at hand. This decision thus sets a precedent for deeming a procedure a non-patentable diagnostic method even if it does not include the conclusive step of deductive medical decision. However, the ruling also attempts to distinguish between the commercial and non-commercial steps of a method, which for the above-named reasons is not in accord with the wording or with the spirit and purpose of Article 52(4) of the EPC (*see* 3.1. above).

4.4 Rejection of the Narrow Viewpoint

In its decision T 964/99,[20] the EPO attempted a fundamental change of course away from the highly restrictive interpretation of the term 'diagnostic method', which had also come into use in the EPO's examination guidelines.[21] The expression 'diagnostic methods practiced on a human or animal body' in Article 52(4) of the EPC, and the corresponding passage in the other two official languages, the Board clarified, are not to be understood as procedures that contain all the steps doctors have to take when making a diagnosis. Instead, the point of Article 52(4) is to exclude from patent protection all the procedures carried out on human or animal bodies that relate to diagnosis or can be used for diagnostic purposes. A step in which a sample of a substance is taken from a living human or animal body by iontophoretic means for diagnostic purposes is to be considered a diagnostic method in the sense of Article

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[19] EPO, February 11, 1997, Case T 655/92, 1998 OJ EPO 17 – *Diagnostic and contrast agent/NYCOMED*.

[20] EPO, June 29, 2001, 2002 OJ EPO 4, paras. 4.1, 4.4, 5.2 – *Device and method for sampling of substances using alternating polarity/CYGNUS*. Decisions in the same sense are cited in Referral of December 29, 2003, *supra* note 6, at 242 *et seq*.

[21] Part C-IV 4.3 (status October 2001; now 4.8.1); compare Referral of December 29, 2003, *supra* note 6, at 239.

52(4). That this step could be carried out by the patient himself, and that its use would neither have significant effects on his body nor pose a serious health risk, the Board noted, was immaterial for its finding.[22]

4.5 Opinion of the EBA: Confirmation of the Narrow Viewpoint

1. The decision T 964/99 prompted the president of the EPO, pursuant to Article 112(1)(b) of the EPC, to refer the case to the EBA.[23] In its opinion,[24] the Board severely narrowed the term 'diagnostic method' within the meaning of Article 52(4) of the 1973 EPC.[25] In order for the subject matter of a claim to be seen as a diagnostic method in the sense of this provision, it stipulated, the claim must contain elements relating to (Headnote 1 and paras. 5-6.2.4):

> (i) the diagnosis for curative purposes *stricto sensu* representing the deductive medical or veterinary decision phase as a purely intellectual exercise,
> (ii) the preceding steps which are constitutive for making that diagnosis, and
> (iii) the specific interactions with the human or animal body which occur when carrying those out among these preceding steps which are of a technical nature.

As concerns diagnostic methods, the EBA thus consciously departs from the existing case law, according to which a procedure is excluded from patentability as a *surgical or therapeutic method* when it includes so much as *one* step that qualifies as being surgical or therapeutic[26] (para. 6.2.2).

2. One reason for this dissimilar assessment could be that examinations carried out on the body of a human or an animal can serve other purposes besides determining the existence of a disease as a pathological condition, such as determining a physiological condition.[27] This is the case, for example, in testing people's physical fitness for a certain line of work, or when bodily functions are monitored in conditions of athletic exertion or weightlessness. A patent claim directed to a method of examining the human or animal body can therefore include non-medical uses. In this respect, however, there is no need to keep patent rights from impinging on such a method, as is intended by the exclusion of medical procedures from patent protec-

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[22] EPO, Case T 964/99 *supra* note 20, para. 6.1. Compare also EPO, June 11, 1997, Case T 329/94, 1998 OJ EPO 241 – *Blood extraction method/BAXTER*: It hardly matters whether a measure is performed by a medical practitioner or other person with medical knowledge, or under the supervision of such a person. Much more important are the 'purpose and inevitable effect' of that step.

[23] Referral of December 29, 2003, *supra* note 6.

[24] Opinion of December 16, 2005 G 1/04, 2006 OJ EPO 334 – *Diagnostic methods*; concurring, Federal Patent Court (Bundespatentgericht), July 11, 2006, 2007 GRUR 133 – *Auswertung diskreter Messwerte*.

[25] This opinion retains its validity, as it points out in paras. 10 and 11, under Article 53(c) of the 2000 EPC, which replaced Article 52(4); *cf.* I 3 above.

[26] EPO, Case T 182/90, *supra* note 6; EPO January 11, 1994, Case T 890/92, 1995 OJ EPO 113 – *Contraceptive method/THE GENERAL HOSPITAL*; EPO May 15, 1995, Case T 82/93, 1996 OJ EPO 274 – *Cardiac pacing/TELETRONICS*; EPO, Case T 35/99, *supra* note 7, paras. 7, 8.

[27] *Cf.* Federal Patent Court (Bundespatentgericht), January 19, 1984, 1984 Mitteilungen der deutschen Patentanwälte (Mitt.) 214; THOMAS, 34 IIC 847, 856 (2003).

tion. It would therefore be inappropriate to deny such an examination method patent protection in its non-medical areas of use as well. While this situation is certainly avoided when a claim is considered to be directed to a diagnostic method only under the conditions set out by the EBA, it is nevertheless questionable whether an inhibition of the *medical* use of an examination method by patent effects can also be avoided in this way.

4.6 Significance of the 'Phase of Deductive Medical Decision' as Feature of a Claim

1. As the EBA itself sees (para. 5.2), the 'deductive medical decision phase' is as such an intellectual exercise, unless it should become possible to use a technical device that can reach diagnostic conclusions. As an intellectual exercise, however, pursuant to Article 52(2) of the EPC, the deductive medical decision phase does not count as an invention within the meaning of Article 52(1). On the other hand, the EBA rightly assumes (paras. 4 and 5.3) that the procedures excluded by Article 52(4) are inventions in the sense of Article 52(1) and that the only reason why they are excluded from patentability via the legal fiction that they are not industrially applicable is so that those who use diagnostic methods to treat humans or animals will not be inhibited in their work by patent rights.

2. There might be reason to include the deductive medical decision phase in a patent claim directed to a method of analysis if this feature represented the novelty and non-obviousness of the invention. That this might ever actually be the case is highly unlikely. In this respect diagnostic methods are different from software. With the latter, the new and inventive step is often contained in features that are not technical in and of themselves, so it can be justified to include them in the claim. Despite this, however, patent protection is not always possible in such cases due to the recent case law of the EPO, which requires that examinations for inventive step take only those features into consideration that contribute to the technical character of the subject matter of the application.[28]

3. For diagnostic methods, on the other hand, there is no reason from the applicant's perspective to include the 'deductive medical decision phase' in the claim, as it does not contribute to the technical character, novelty, or inventive step of the method. Including such a feature would in fact be detrimental, as it would automatically trigger a rejection of the patent application pursuant to Article 52 (4) (now 53(c)) of the EPC.

4.7 Is the Lack of a Feature Relating to the Phase of Deductive Medical Decision an Infringement of Article 84 EPC?

1. The EBA assumes, judging from its opinion G 1/04, that patent applicants will simply leave any feature concerning the phase of deductive medical decision out of

[28] *Cf.* EPO, December 8, 2000, Case T 931/95, 2001 OJ EPO 441 – *Improved pension benefits system/PBS PARTNERSHIP*, EPO April 21, 2004, Case T 258/03, 2004 OJ EPO 575 – *Automatic auction method/HITACHI*.

their claims. To avoid such 'evasion' of the provision excluding diagnostic methods from patentability, the EBA concludes, based on Article 84 of the EPC, that this feature must be included in the claim (para. 6.2.4 in conjunction with para. 6.2 and 6.2.3). The first sentence of this provision reads: 'The claims shall define the matter for which protection is sought.' It is complemented by the first sentence of Rule 43(1) (ex 29(1)): 'The claims shall define the matter for which protection is sought in terms of the technical features of the invention.' The EBA explains that, according to the established case law of the EPO on Article 84, in order to be patentable, an independent claim must contain all essential features that are necessary for the clear and complete definition of a certain invention. Essential features are for the most part of a technical nature. If, however, a non-technical feature must be considered constitutive for the invention, then it must also be included among the essential features of the claim. Thus, although the diagnosis in the narrow sense is a purely intellectual exercise – if it is not carried out by a device – the step relating to this diagnosis is such an essential feature. It is thus to be included in the claim if it is clear from the application or patent concerned that it is essential. The Board holds this to be the case if a method for determining diagnostically relevant values is disclosed in the application or patent that would allow the deviation from standard values to be attributed to a certain disease.

2. If an examiner recognizes such a situation and determines that the (independent) method claim does not include a feature related to the phase of deductive medical decision, the examiner is obliged, in the view of the EBA, to require that this feature be added to the claim. If it is not added, the examiner must reject the application. If the applicant does follow the examiner's invitation to add this item, then the application must be rejected due to the patent ban laid out in Article 53(c) of the EPC. One wonders why this should not be possible as soon as it becomes clear from the contents of the application as a whole that the method used serves diagnostic purposes.

It is only in this way that evasions of the patent ban can reliably be prevented, for it is highly doubtful whether Article 84 truly provides a basis for requiring a feature related to the deductive decision phase to be inserted in the claim. As mentioned above, this feature is not relevant for the technical character, the novelty, or the inventive step of the subject matter of the application. It is likewise not needed for a complete description of the method of analysis, as required in the disclosure part of an application, so that a person skilled in the art can carry it out. This element is thus in no way 'constitutive' for the invention of a (technical) method of analysis. On the contrary, this invention must be patented, provided that the exclusion of diagnostic methods does not rule it out.

That the EBA deems that feature 'essential' is due solely to the narrow definition it has given the term 'diagnostic method'. Here the feature acts as a necessary requirement for the claim's *not being admissible* due to Article 53(c) of the EPC. If, by contrast, the feature's inclusion in the claim were required pursuant to Article 84, the feature would act as a prerequisite for the claim's *admissibility.* Whether or not it is an essential feature of the claim is only a question of which features the claim must contain in order to define the method technically in the disclosure and to dis-

tinguish it from prior art. As concerns methods of analysis on the human or animal body, it is hard to imagine that this would necessitate the inclusion of a feature relating to the phase of deductive medical decision, in addition to those features designating the technical steps of a method. For this reason, if a patent *application* were rejected because it did not contain such a feature, as per the EBA's specifications, an appeal by the applicant would as a rule have to be successful. Opposition to a *patent* granted without the feature in question could not be based on an alleged infringement of Article 84 anyway, because such a breach is not included among the admissible grounds for opposition in Article 100 of the EPC. As a result, the exclusion of diagnostic methods from patentability that is provided for in Article 53(c) of the EPC will therefore lose all practical significance.

4.8 Opinion of the EBA on Further Requirements of the Exclusion Provision

1. In this opinion, the EBA also took up the question of under what conditions a procedure is to be considered practiced on a human or an animal body. Its answer is that every interaction with the body of a human or an animal is sufficient that requires the presence of that body (Headnotes 3, 4 and para. 6.4 *et seq.*). The type or intensity of the interaction are of no significance.

2. The involvement of a physically present or responsible medical or veterinary doctor, according to the EBA's opinion, is not a requirement for determining whether or not a method is diagnostic in the sense of Article 52(4) EPC. Likewise, it is not relevant whether all the steps of the method can or must be carried out by medical or technical support personnel, the patient himself, or an automated system. No distinction may be made in this context between essential steps of the method, with diagnostic character, and non-essential steps, without this character (Headnote 2 and para. 6.3).

3. This delimitation corresponds completely to the rationales laid out in 3. above for keeping medical activities free of patent constraints. The medical professional sought out by the patient should face no restrictions in applying any diagnostic method he or she considers necessary or merely appropriate, and this must apply even when that method is not a sample analysis performed in the absence of the patient that can readily be 'purchased' on the market. The possibility that such a need to deny patentability might for this reason be only slight or non-existent in even a fraction of the examinations requiring a patient's presence cannot be taken into consideration under the current provisions. In addition, this problem is mitigated by the fact that the *equipment* or other *products* needed to carry out such examinations are as a rule patentable. Admittedly, the holder of a patent granted for such a product may be interested in patenting not only the product itself but also its *proper use as a method*, as determined by the features of that product. This interest is not without objection, however, because such a patent would authorize its holder to impose use restrictions on those acquiring patented products. For this reason, it is not unreasonable to deny patents for such methods, at least when the method of analysis that consists in using the product must according to the EBA's opinion be considered one that is practiced on a body.

4. The question remains how to do justice to those cases involving a method of analysis capable of both medical and non-medical application (*see* 4.5., No. 2 above). If in such cases the medical use can be distinguished from the non-medical use, a patent can be granted solely for the non-medical area of application, as has occasionally been done in the past for processes that can serve therapeutic as well as cosmetic purposes.[29] How to delimit the claims so as not to include the medical area of use is a matter of the individual case. It could be advantageous to except the medical use by a disclaimer, which after a landmark decision of the EBA can be an acceptable means to make an exception of a subject matter that is excluded from patentability for non-technical reasons according to Articles 52 to 57 of the EPC.[30] Since that decision had to do with the permissibility of adding a disclaimer after the fact, there should certainly be no objections to a disclaimer that is contained in the originally submitted version of the patent application.

5. Concluding Remarks

The principles established by the EBA on the question of when a diagnostic method is to be considered as practiced on a human or animal body and the question regarding the persons carrying out a diagnostic method do away with some of the false interpretations that have been expressed in the case law, and they could contribute to a sensible delineation, reflecting the spirit and purpose of the law, of the scope of the exclusion of diagnostic methods from patentability.

However, these principles are drained of any practical relevance by the definition adopted by the EBA of the term 'diagnostic method'. This definition cannot be justified by the wording[31] or the purpose of Article 52(4) (now 53(c)) of the EPC. It focuses on the deductive activity of the doctor, which as such cannot be hampered by patent effects anyway, and fails to consider the possibility that a restraint can take place during the phase of collecting the data that a doctor needs as the basis for his conclusion.

During the revision conference in 2000, several amendments to the EPC were resolved and some changes discussed that failed to materialize. The abrogation of the patent exclusion of diagnostic procedures was not even on the agenda for discussion. The EBA, however, has seen to it that this provision can be regarded as abolished for all practical purposes. The application of Article 84 of the EPC does not constitute an appropriate means to resuscitate the exclusion to the extent called for by the spirit of the law.

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[29] *Cf.* EPO, March 27, 1986, Case T 144/83, 1986 OJ EPO 305 – *Appetite suppressant/DU PONT*.

[30] EPO, April 8, 2004, Case G 1/03, 2004 OJ EPO 413 – *Disclaimer/PPG.*

[31] *Cf.* EPO, Case T 964/99, *supra* note 20, para. 4.2, where major reference works are cited to define the term 'diagnostic method'.

Special Legislation for Genetic Inventions – A Violation of Article 27(1) TRIPS?

Wolrad Prinz zu Waldeck und Pyrmont

1. Introductory Remarks

Professor Joseph *Straus*, to whom the following remarks are dedicated, has very early and continuously researched the challenges patent law faces in view of new technologies, especially in the field of biotechnology.[1] Early on he stressed the importance that the framework of the international conventions in the field of intellectual property, and in particular the TRIPS Agreement,[2] have for the field of patent law, especially by providing minimum standards as regards the scope of patentable subject matter and the effect of the patent right.[3] One of the most important and most contentious provisions of the TRIPS regime of patent law is its Article 27, embodying non-discrimination requirements with respect to patentable subject matter and the rights conferred by a patent.[4]

This contribution follows *Straus*' focus on biotechnology and on the impact of international treaties in the field of patent law. It will analyze whether the adoption of special legislation relating to the treatment of inventions in one of his most eminent fields of research, biotechnology patent law, in particular as it relates to gene patents and research tool patents, is warranted due to peculiarities of the subject matter, and permissible in view of the non-discrimination requirements of Article 27(1) TRIPS.

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1 *See e.g.*, STRAUS, Patent Protection for New Varieties of Plants Produced by Genetic Engineering - Should 'Double Protection' be Prohibited?, 15 IIC 426 (1984); Industrial Property Protection of Biotechnological Inventions (1985); Biotechnologische Erfindungen – ihr Schutz und seine Grenzen, 1992 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 257; Patenting of Human Genes in Europe – Past Developments and Prospects for the Future, 26 IIC 920 (1995); An Updating Concerning the Protection of Biotechnological Inventions Including the Scope of Patents for Genes – An Academic Point of View, [2003] OJ EPO Special Issue 166; The Scope of Protection Conferred By European Patents on Transgenic Plants and on Methods for Their Production, in: BAKARDJIEVA-ENGELBREKT/NORDELL (eds.), Festskrift till Marianne Levin, 639-653 (2007).

2 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Apr. 15, 1994.

3 *See*, *e.g.* STRAUS, Implications of the TRIPS Agreement in the Field of Patent Law, in: BEIER/SCHRICKER (eds.) From GATT to TRIPS – The Agreement on Trade-Related Aspects of Intellectual Property Rights, IIC Studies Vol. 18, 160-215 (1996) (hereinafter: TRIPS Implications).

4 *See e.g.* DE CARVALHO, The TRIPS regime of patent rights 165 (2nd ed. 2005) (Art. 27(1) is 'perhaps the core provision, and the reason of being of the whole TRIPS Agreement'); SOMMER, The Scope of Gene Patent Protection and the TRIPS Agreement – An Exclusively Nondiscriminatory Approach?, 38 IIC 30 (2007) (considering the non-discrimination principle of Art. 27(1) one of the 'major achievement of the TRIPS Agreement').

2. The Developments in the Biotechnological Sector

Biotechnology has become one of the fastest growing industries in the last decades and has made already invaluable contributions to medicine, agriculture and industry.[5] Global revenues have increased from 2005 to 2006 by 14% to $ 73.5 billion, and R&D expenses in the research intensive industry reached $ 27.8 billion in 2006, up more than 33% from 2005.[6] Also within the pharmaceutical industry, biologics have seen the fastest growth and account for an increasing share of compounds in research pipelines.[7] In 2005, worldwide annual expenditures for biologic drug therapy have increased by 15-17% to $50 billion, and are expected to grow to $105 billion by 2010.[8]

The fast industry growth was spurred by the rapid technological advances in biomedical research, which had extensive (beneficial) consequences for the quality of human life. Much of the research has been made possible by the development of new research technologies, *e.g.* basic technologies such as the polymerase chain reaction (PCR) or the recombinant DNA techniques developed by Cohen and Boyer, animal models such as the Harvard-Oncomouse or the CreLoxP-mouse, and technologies based on the use of genes and partial gene sequences like RNA-Interference and the use of ESTs and SNPs.[9] The increase in biotechnological discoveries and development of new technologies since 1990 was accompanied by an upsurge of the number of patent applications filed for genomic inventions.[10]

For the most part, concepts known from the patenting of chemical inventions were applied also to the field of biotechnology. In Europe, the Biotech-Directive[11] transposed the concept that the making available of naturally occurring chemical

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[5] *See generally* ALBERTS, Molecular Biology of the Cell (2002). For an overview of individual biotechnological achievements, *see* BIOTECHNOLOGY INDUSTRY ORGANIZATION (BIO), Guide to Biotechnology 6-15 (2007), available at <http://bio.org/speeches/pubs/er/BiotechGuide.pdf> (as of May 2008).

[6] LAWRENCE, Data Page: State of the biotech sector – 2006, 25 Nature Biotech. 706 (2007).

[7] LAWRENCE, Data Page: Pipelines turn to biotech, 25 Nature Biotech. 1342 (2007) (reporting that more than one quarter of FDA submissions for marketing approval and 42% of compounds in preclinical testing are biologics).

[8] LIANG, Safety Issues in Regulating Follow-On Biologic Drugs, 10 J. Biolaw & Bus. 44 (2007) (noting that the growth in biologic drug therapy has by far outpaced the growth of the pharmaceutical sector, which in 2005 increased by 7% up to $600 billion).

[9] *See*, *e.g.* STRATTON, Genome resequencing and genetic variation, 26 Nature Biotech. 65 (2008) (deeming the Human Genome Project and current resequencing proposals inconceivable but for the development of powerful genomic research tools and technologies, such as high-throughput screening and shotgun sequencing).

[10] A study by the National Academies of Sciences has identified 33.000 patents granted by the USPTO between 1976 and 2006 which claim or refer to nucleic acids. The yearly grant rated remained constant below 500 until 1991 when it started increasing rapidly, peaking at 4.500 in 2001. *See* MERRIL/MAZZA, Reaping the Benefits of Genomic and Proteomic Research 101 *et seq.* (2006).

[11] Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions, [1998] OJ L 213, p. 13. The ECJ determined that the directive is in conformance with the EC Treaty and that it did not violate Article 27(3) TRIPS; a violation of Article 27(1) was not alleged. *See* ECJ, Case C-377/98, [2001] ECR I-7079.

substances may be the basis for a patentable invention[12] to the field of genomics by explicitly acknowledging in its Article 3(2) that 'biological material which is isolated from its natural environment or produced by means of a technical process may be the subject of an invention even if it previously occurred in nature' – also referred to as the 'doctrine of isolation'. Article 5(2) Biotech-Directive endorses the concept's application to elements isolated from the human body in general and to gene sequences or parts thereof in particular.[13]

However, the application of traditional patent law to biotechnology and the increase in patent applications for genomic inventions has been observed with caution, and concerns have been voiced repeatedly that the increased patenting in the biomedical field will hinder research and development of new medicines and thus negatively impact innovation in this important industrial sector. One of the most often quoted articles uses the expression *tragedy of anticommons* for a situation where a fragmentation of rights in a needed resource – *e.g.*, a gene sequence – would lead to its underuse due to the difficulty and costs to procure licenses from all rightholders and thus would negatively impact biomedical research.[14] The situation was deemed most pressing in the area of genomics, and consequently, numerous suggestions have been put forward to alleviate the perceived problem, ranging – in order of the impact on the (prospective) patentee – from excluding from patentability human gene sequences or research tools, introducing special research exemptions/expanding existing ones, to specific provisions for compulsory licensing of patents for gene sequences or research tools. [15]

3. Specific Legislation for Biotechnological Inventions

These calls have not gone unheeded, and some countries have adapted their national patent laws following these proposals or have according legislation pending. For example, when implementing the Biotech-Directive, France expressly excluded product protection for gene sequences and permits only claims directed to their

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[12] *See, e.g.*, German Federal Patent Court, 16 W (pat) 64/75 of July 28, 1977, GRUR 1978, 238 – *Naturstoffe*.

[13] Article 5(2) reads: An element isolated from the human body or otherwise produced by means of a technical process, including the sequence or partial sequence of a gene, may constitute a patentable invention, even if the structure of that element is identical to that of a natural element.

[14] HELLER/EISENBERG, Can Patents Deter Innovation? The Anticommons in Biomedical Research, 280 Science 698 (1998).

[15] *See, e.g.*, BARTON, United States Law of Genomic and Post-Genomic Patents, 33 IIC 779 *et seq.* (2002) (suggesting the exclusion from patentable subject matter whenever a situation of blocking patents becomes acute and naming proteomics as an example); DERZKO, In Search of a Compromised Solution to the Problem Arising from Patenting Biomedical Research Tools, 20 Santa Clara Computer & High Tech. L.J. 347 (2004) (proposing a broadened experimental use exemption); FREEBURG, No Safe Harbor and No Experimental Use: Is it Time for Compulsory Licensing of Biotech Tools?, 53 Buff. L. Rev. 351 (2005).

uses.[16] A legislative proposal is pending in the U.S House of Representatives which would end the patenting of genes by prospectively barring any patents directed to 'nucleotide sequences, or its functions or correlations, or the naturally occurring product it specifies.'[17]

While subject matter exclusions remain isolated, several European countries have introduced legislation expressly limiting the scope of protection of gene patents to their disclosed function. For example, Article L611-18(2) French Industrial Property Act limits the protection of any invention relating to an element of the human body, *e.g.* to a protein or a human cell, 'to the extent necessary to the realization and the exploitation of this particular use'. Furthermore, Article L 6113-2-1 essentially converts any product claim including a gene sequence – if not be already barred by Article L611-18 – to a method-claim or use-claim as it expressly restricts the patent scope to the disclosed application.[18] Likewise, the interplay of Paragraphs 3 and 4 of the new Section 1a German Patent Act effectively restrict the scope of patents for human gene sequences to their disclosed purpose by requiring patent applicants to disclose and to claim the specific application of the gene sequence.[19] Similar provisions can be found in Swiss[20] and Italian[21] patent laws.

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[16] *See* Article L611-18 (3) French Intellectual Property Code, introduced by Act No. 2004-800 of 6 August 2004, Article 17a II, Official Journal of August 7, 2004: 'The following, in particular, shall be considered unpatentable: …d) total or partial sequences of a gene as such.'

[17] Proposal for a *Genomic Research and Accessibility Act*, H.R. 977, 110th Cong. (2007), introduced on February 7, 2007. It would constitute the first *subject matter-specific* proscription of patentability in U.S. patent law.

[18] *See* Article L611-18 (2) Intellectual Property Code: '…This protection shall cover the element of the human body only to the extent necessary to the realization and the exploitation of this particular use.'
Article L613-2-1 reads:
(1) The scope of a claim concerning a gene sequence shall be confined to the part of such sequence that is directly related to the specific function disclosed concretely in the description.
(2) The rights created by the delivery of a patent including a gene sequence may not be called upon against a later claim on the same sequence if this claim satisfies the requirements of Article L. 611-18 and if it discloses any other particular application of this sequence.
Whether these provision will be interpreted to preclude product patent altogether or merely stipulate a narrow purpose-bound protection is yet unclear for lack of case law.

[19] Sec. 1a German Patent Act: …
(3) The industrial application of a sequence or a partial sequence of a gene must be disclosed in the patent application in a concrete manner indicating the function performed by the sequence or partial sequence.
(4) Where the object of the invention is a sequence or partial sequence of a gene, whose structure is analogue to the structure of a naturally occurring sequence or partial sequence of a human gene, the claims shall include the use, for which the industrial applicability is described in a concrete manner pursuant to sub-section 3.

[20] *See* Art. 8c Swiss Patent Act, introduced by Law of June 22, 2007 amending the Federal Law on Patents for Inventions, available at <http://www.admin.ch/ch/d/ff/2007/4593.pdf> (as of May 2008). The new provision restricts the scope of a claim on *any* nucleotide sequence derived from a naturally occurring (partial) gene sequence to the parts fulfilling the function concretely disclosed in the patent.

[21] Article 3.1d of Law Decree n. 3 of January 10, 2006, implemented with Law 78/2006 permits the patentability of 'un'invenzione relative ad un elemento isolato dal corpo umano o diversa-

These provisions narrow the scope of gene patents to the disclosed purpose, effectively approximating it to the protection conferred by use or method patents, and thus breaking with the principle of absolute product protection prevailing in other technical fields.[22]

4. Article 27(1) and its Non-Discrimination Requirements

4.1 Background

Agreeing on the non-discrimination requirements of Article 27(1) has been considered 'one of the major concessions made by developing countries during the TRIPS negotiations'[23] and still remains one of the most contentious issues of TRIPS. Prior to the negotiations of the TRIPS agreement, several unsuccessful attempts were made to adopt an international agreement eliminating discrimination relating to the field of technology, one at the diplomatic conference on the revision of the Paris Convention held in Lisbon in 1958,[24] the most recent during the negotiations for a Treaty Supplementing the Paris Convention as far as Patents are Concerned some 30 years later.[25] One of the main reasons behind the drive for such non-discrimination requirements was to make available patent protection for chemical and pharmaceutical inventions[26] which more than 50% of the Paris Convention contracting states did not provide for at the time of the negotiations of the TRIPS Agreement or only very gradually introduced.[27] Article 27(1) provides:

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mente prodotto, mediante un procedimento tecnico … a condizione che la sua funzione e applicazione industriale siano concretamente indicate, descritte e specificamente rivendicate'.

[22] *See*, *e.g.*, German Federal Supreme Court (Bundesgerichtshof, BGH), Case X ZB 2/71 of 14.03.1972, 3 IIC 386, 390 (1972) – *Imidazoline*; X ZR 14/02 of December 13, 2005, 2006 GRUR 399 – *Rangierkatze*; European Patent Office, Enlarged Board of Appeal, G2/88 of December 11, 1989, [1990] OJ EPO 90 – *Friction Reducing Additive/MOBIL OIL III*. *See also* KEUKENSCHRIJVER, in: BUSSE (ed.), Patentgesetz, § 9 marginal note 51 (2003); BENTLY/SHERMAN, Intellectual Property Law 294 (2001); KRAßER, Patentrecht 125, 129 *et seq.* (5th ed. 2004).

[23] CORREA, Trade Related Aspects of Intellectual Property Rights 275 (2007).

[24] *See* Union International pour la Protection de la Propriété Industrielle, Actes de la Conférence Réunie à Lisbon du 6 au 31 Octobre 1958, at 370-387 (1963).

[25] *Cf.* World International Property Organization [WIPO], Draft Treaty Supplementing the Paris Convention for the Protection of Industrial Property as Far as Patents are Concerned (Patent Law Treaty), Art. 10 Alternative B, WIPO Doc. PLT/DC/3, of December 21 (not adopted), 1990 ('Patent protection shall be available for inventions, whether they concern products or processes, in all fields of technology.') = SCP/4/3, available at <http://www.wipo.int/edocs/mdocs/scp/en/scp_4/scp_4_3.doc>.

[26] *Cf.* Submissions from Participants on Trade Problems Encountered with Intellectual Property Rights of May 29, 1987, GATT document MTN.GNG/NE11/W/7.

[27] STRAUS, TRIPS Implications, *supra* note 2, at 181 (referring to the WIPO study 'Existence, Scope and Form of Generally Accepted and Applied Standards/Norms for the Protecting of Intellectual Property', Document WO/INF/29 of September 1988). *See also* SOMMER, *supra* note 4, at 31.

> Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and *patent rights enjoyable without discrimination as to* the place of invention, *the field of technology* and whether products are imported or locally produced.[28] (emphasis added)

As can be easily discerned, the provision contains several non-discrimination requirements, namely the prohibition of discrimination as to (1) place of invention, (2) field of technology, and (3) whether products are imported or locally produced. The following remarks will focus on the compatibility of specific legislation with the second requirement, *i.e.* the prohibition of discrimination as to the field of technology.

4.2 Interpreting Article 27(1)

According to the general rule of treaty interpretation embodied in Article 31(1) Vienna Convention on the Law of Treaties, the provisions of the TRIPS Agreement have to be 'interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in light of its objects and purpose.'[29] The importance of considering purpose and the objective of the agreement is stressed by Paragraph 5(a) of the Doha Declaration on the TRIPS Agreement and public health which reads:

> In applying the customary rules of interpretation of public international law, each provision of the TRIPS Agreement shall be read in the light of the object and purpose of the Agreement as expressed, in particular, in its objectives and principles. [30]

When interpreting 'discrimination as to the field of technology', the elements referred to in Article 31(1) Vienna Convention – *i.e.*, text, context, object and pur-

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[28] The EPC 2000 amended Article 52 EPC emphasizing the non-discrimination requirement: Art. 52(1) EPC: 'European patents shall be granted for any inventions, *in all fields of technology*, provided…' (emphasis added).

[29] Vienna Convention on the Law of Treaties, done at Vienna on 23 May 1969 and entered into force on 27 January 1980, United Nations, Treaty Series, vol. 1155, p. 331 (hereinafter: Vienna Convention). Articles 31 and 32 Vienna Convention have been held to form part of the 'customary rules rules of interpretation of public international law' which govern the interpretation of TRIPS provisions. *See* WT/DS2/AB/R, Report of the Appellate Body, *United States – Standards for Reformulated and Conventional Gasoline*, at 15-16; WT/DS50/AB/R, Report of the Appellate Body, *India – Patent Protection for Pharmaceutical and Agricultural Products*, para. 46. *Cf.* WOLFRUM, WTO – institutions and dispute settlement, Art. 3 DSU note 14 (2006).

[30] Declaration on the TRIPS-Agreement and public health, adopted November 14, 2001, WT/MIN(01)/DEC/W/2. The Doha Declarations has to be taken into consideration under Article 31(1)(a) Vienna Convention. *See* ABBOT, The Doha Declaration on the TRIPS Agreement and Public Health: Lighting a Dark Corner at the WTO, 2002 JIEL 491-492. *See* generally CORREA, Implications of the Doha Declaration on the TRIPS Agreement and Public Health, WHO/EDM/PAR/2002.3, available at <http://www.who.int/medicines/areas/policy/WHO_EDM_PAR_ 2002.3.pdf> (as of May 2008).

pose and good faith – must be applied in a holistic way and not in a sequence of tests of hierarchical order.[31]

Dictionaries provide two differing meanings of 'to discriminate': (1) 'to perceive, note or make a distinction between things, differentiate, distinguish' (corresponding directly to its Latin origin *discriminare* – distinguish between); and (2) 'to make a difference in treatment or favor on a basis other than individual merit', respectively, to 'make an unjust distinction in the treatment of categories'.[32] While the term 'discrimination' is used two more times, it has not been defined in the TRIPS Agreement. Until today, only one WTO panel attempted an interpretation of the prohibition of discrimination as to the field of technology.[33] In *Canada – Patent Protection of Pharmaceutical Products*, the provision's meaning was discussed in some detail, and though the panel explicitly refrained from defining the term 'discriminate', it seems appropriate to draw on its deliberations in the course of interpretation.

4.3 *De jure* Discrimination v. Differential Treatment

Recalling that the primary non-discrimination provisions – National Treatment (Article 3) and Most-Favored-Nation Treatment (Article 4) – address the concept in more precise language without using the term 'discrimination', the panel inferred that the concept would be broader than the discriminatory situations addressed by these provisions. It stated: 'It certainly extends beyond the concept of differential treatment. It is a normative term, pejorative in connotation, referring to the results of the unjustified imposition of differentially disadvantageous treatment.'[34]

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[31] *See*, *e.g.*, WT/DS152/R, Report of the Panel, *United States – Sections 301-310 of the Trade Act of 1974*, para. 7.22 ('[T]he elements referred to in Article 31 – text, context and object as well as good faith – are to be viewed as one holistic rule of interpretation rather than a sequence of separate tests to be applied in a hierarchical order.') *See also* INTERNATIONAL LAW COMMISSION, Commentary to Art. 31, 1966 Yearbook of the ILC, Vol. II, at 219-220; SHANKER, The Vienna Convention on the Law of Treaties, the Dispute Settlement System of the WTO and the Doha Declaration on the TRIPs Agreement, 35 Journal of World Trade 726 *et seq.* (2002).

[32] *See*, *e.g.*, Webster's Ninth Collegiate Dictionary (1984); Shorter Oxford English Dictionary (6th ed. 2007). Dictionaries have become an 'essential research tool in WTO TRIPS litigation' and panels tend to stay close to the text of a provision, *cf.* DINWOODIE, The Architecture of International Intellectual Property System, 77 Chi.-Kent L. Rev. 993, 1005-06 (2002).

[33] Panel Report, *Canada—Patent Protection of Pharmaceutical Products*, WT/DS114/R (Mar. 17, 2000) available at <http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds114_e.htm> (as of May 2008). Different proceedings where Canada alleged a violation of Article 27(1), non-discrimination requirement by Europe's law on supplemental protection certificates have not been further pursued and neither a panel was established nor a settlement notified. *See* Request for Consultations, *European Communities – Patent Protection for Pharmaceutical and Agricultural Products*, December 7, 1998, WT/DS153/1; IP/D/15; G/L/283.

[34] Canada–Pharmaceutical products, *supra* note 33, at para. 7.94. *See also* CORREA, *supra* note 23, at 282 (availability and scope of enforcement measures should not unjustifiably differentiate on the basis of the field of technology); DINWOODIE/DREYFUSS, Diversifying Without Discriminating: Complying with the Mandates of the TRIPS Agreement, 13 Mich. Telecomm. Tech. L. Rev. 445, 450 (2007).

However, if one starts from the assumption that – while broader than the two narrow provisions of most-favored-nation and national treatment – the term 'discrimination' is used consistently throughout the TRIPS Agreement, it would follow that the first definition, *i.e.* to distinguish, would more likely be the ordinary meaning of discrimination. In contrast to Article 27(1), Article 4(d) prohibits discrimination only if it is *arbitrary or unjustifiable*. The second dictionary definitions of 'discrimination' discern permissible differential treatment from discrimination by the fact that a discriminatory treatment is not based on individual merit or justified in view of the different categories. Consequently, such interpretation would render any discrimination under Article 4(d) always either arbitrary or unjustified, and would render meaningless part of the provision if followed.[35]

Nevertheless, it does not follow from this more narrow reading that patent law cannot treat different situations differently – only the criterion 'field of technology' is an impermissible basis for the differentiation. The panel acknowledged this fact when it stated:

> Beyond that, it is not true that Article 27 requires all Article 30 exceptions to be applied to all products. Article 27 prohibits only discrimination as to the place of invention, the field of technology, and whether products are imported or produced locally. *Article 27 does not prohibit bona fide exceptions to deal with problems that may exist only in certain product areas.*[36]

Different situations can and must be treated differently; the underlying distinction just has to be based on factors other than a technical field. For example, a valid basis for a distinction could be the requirement to obtain regulatory approval before an invention can be marketed.[37]

That several countries provide for purpose-limited product protection only for the field of gene patents does not result in a different appraisal as their legislative activities cannot be viewed as a subsequent practice under Article 31(3) Vienna Convention which would have to be taken into consideration for the treaty's interpretation. A subsequent practice must be such as to establish a 'concordant, common and consistent' practice[38] which had been interpreted as 'sequence of acts or pronouncements which is sufficient to establish *a discernable pattern* implying the agreement of the parties'.[39] In view of the diverging approaches employed by the

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[35] *See also* DE CARVALHO, *supra* note 4, at 205 (pointing out that Article 27(1) conclusively lists all permissible exception from the non-discrimination requirements in its own text and that it does admit discriminatory measures even if non-arbitrary or justified).

[36] Canada–Pharmaceutical products, *supra* note 33 at para. 7.92 (emphasis added).

[37] DE CARVALHO, *supra* note 4, at 170 (interpreting Article 27(1) to clearly state that 'it is not that fact that two inventions belong to two different technology fields that make them different.') *See also* DINWOODIE/DREYFUSS, WTO dispute resolution and the preservation of the public domain of science under international law, in: MASKUS/REICHMAN (eds.), International Public Goods and Transfer of Technology Under a Globalized Intellectual Property Regime, at 861, 866 (2005) (finding that a subject matter exclusion directed at a technical field such as biotechnology would violate the non-discrimination requirement of Art. 27(1)).

[38] SINCLAIR, The Vienna Convention on the Law of Treaties 137 (2nd ed. 1984).

[39] WT/DS11/AB/R, *Report of the Appellate Body, Japan – Taxes on Alcoholic Beverages*, at 12.

member states vis-à-vis patent protection for genetic inventions, it is obvious that the required common agreement of the parties is lacking.[40]

4.3.1 The Impact of Principles and Objectives

While the preamble may be referred to in order to establish the ordinary meaning of the agreements provisions, it does not contain operative language and cannot serve to modify or re-negotiate the existing obligations under the TRIPS Agreement.[41] The same holds true with regard to Article 7 (Objectives) whose language is too vague to be given operational meaning that could justify derogation from existing requirements.[42]

Likewise, Article 8 (Principles) expressly makes the adoption of any measures to protect public health, other important social policies or to prevent abuse of intellectual property rights contingent on their consistency with the provisions of the Agreement. In view of the considerable leeway Article 4 of the Doha Declaration on TRIPS and public health stipulates for the Agreement's interpretation, it could be conceivable to justify the adoption of non-compliant measures with public health concerns. However, public health concerns under Article 8(1) cannot justify derogation from the non-discrimination requirement of a field of technology as such measures would have to be limited to individual circumstances.[43] As the panel put it:

> Moreover, to the extent the prohibition of discrimination does limit the ability to target certain products in dealing with certain of the important national policies referred to in Articles 7 and 8.1, that fact may well constitute a deliberate limitation rather than a frustration of purpose.[44]

Furthermore, Articles 7 & 8 cannot serve to justify a differential approach towards new technologies, *e.g.*, by allowing for transitional provisions with a gradual introduction of product protection.[45] Even though the wish to end the discrimination of pharmaceutical and chemical inventions has been a primary motivation for some negotiating parties,[46] the provision adopted was worded to apply to all technologies, and subject only to the specific limitations provided for in its text. By its very nature as an instrument to stimulate innovation, patent law was and will be confronted with new technologies that may or may not create specific problems it has to address, and

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[40] *Cf.* Canada-Pharmaceutical products, *supra* note 33, at 7.47 (rejecting the argument that some countries had introduced *Bolar*-like provisions arose to the level of subsequent practises).

[41] *Id.* at para. 7.25; Carvalho, *supra* note 4, at 34.

[42] DE CARVALHO, *supra* note 4, at 123.

[43] *See also* CORREA, *supra* note 23, at 108 (conceiving of the justifiability of non-compliant measures only in view of 'distinct health emergencies...distinct from ordinary or everyday health measures').

[44] Canada-Pharmaceutical products, *supra* note 33, at para. 7.92. *See also* DE CARVALHO, *supra* note 4, at 131.

[45] *But see* SOMMER, *supra* note 4, at 50 (following calls for a 'moratorium for higher intellectual property standards').

[46] *Cf.* Submissions from Participants on Trade Problems Encountered with Intellectual Property Rights of May 29, 1987, GATT document MTN.GNG/NE11/W/7.

it would be an implausible suggestion that the members were not aware of the fact during the negotiations of the TRIPS Agreement. Nevertheless, Article 27(1) does not include an 'experimentation clause' allowing for discrimination of new technologies. It is very rare that new technologies raise completely new issues – it is rather that certain generally known issues arise more frequently and more visibly in specific technical fields than in others. For example, while it is true for all areas of technology that the owner of a dependent invention needs to procure licenses to dominating patents in order to practice her invention, the situation appears to occur more frequently in the biotechnological field.

As a matter of course, the objectives and public policies referred to in Article 7 and 8 may be given significant importance where members have considerable discretion in tailoring their national legislation, *e.g.*, with regard to exceptions under Article 30,[47] or for the assessment of whether a country's ostensibly technology-neutral treatment is a sham.[48]

4.3.2 Public Policy Favors a Narrow Interpretation

Prohibiting discrimination against specific fields of technology (and the perception that all technologies are more or less treated equally under patent law, even if not completely true[49]) helps preventing *regulatory capture* as it constrains industries from exerting (more) pressure to get 'their' patent legislation, *i.e.*, tailored to the perceived needs of their industry.[50] Due to the need for technology-neutral rules, industries arguing for specific legislation for their technical field will meet opposition from other industrial sectors with differing interests. Such opposition will be better organized and more effective in preventing undue influence of interest groups than opposition by the ordinarily more disorganized general public.[51] Consequently, exceptions are less likely to be adopted and thus the incursion on patent law as a whole will remain more 'limited' than without the non-discrimination requirement. Furthermore, it can serve as a check to domestic political pressure as it will prevent industry from spending resources to arrive at special forms of pro-

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[47] CORREA, *supra* note 23, at 109. *See also* Canada–Pharmaceutical products, *supra* note 33, at para. 7.26.

[48] *See infra* 4.4.2.

[49] *See*, *e.g.*, BURK/LEMLEY, Is Patent Law Technology-Specific?, 17 Berkeley Tech. L.J. 1155 (2002); BURK/LEMLEY, Policy Levers in Patent Law, 89 Va. L. Rev 1575 (2003).

[50] According to the *capture theory*, specialized institutions or rules are subject to higher influence of particular interest groups, *cf.* NARD, Rethinking Patent Law's Uniformity Principle, 101 NW. U. L. Rev. 1619, 1629 (2007) (with respect to the proposal of allocating the competence for different technical fields to different courts).

[51] *See, e.g.*, JAFFE/LERNER, Innovation and its Discontents 204 *et seq.* (2004) (citing examples of special interest legislations in patent law). The push for legislation tailored towards the specific interests of an industry can be observed in the legislative process of the patent reform bill in the discussions on the so called 'second window', championed by the software industry and vehemently opposed by the pharmaceutical industry. *Cf.* MOSSINGHOFF/KUNIN, The Need for Consensus on Patent Reform, White Paper of February 1, 2008, at 8 *et seq.*, available at <http://www.oblon.com/files/news/389.pdf> (as of May 2008).

tection that would be more effectively (and beneficially) be used elsewhere.[52] Technology specific rules on subject matter may likely prove ineffective and will invite patent attorneys to practice their drafting skills, as could be observed when a specific review procedure was introduced for patent applications claiming business methods in the US.[53]

4.3.3 Justifying Differential Treatment

Even accepting that the non-discrimination requirement would only bar *unjustified* differential treatment based on an invention's belonging to a specific technical field, barring 'ordinary' product protection for the field of gene sequences seems unjustified. Ethical reasons aside, three lines of argumentation in favor of a differential treatment of gene patents have to be addressed.

The first line of arguments posits that genes should not be viewed as products, but only the information they embody; consequently, as the information always relates to a specific function, limiting patent protection to that function would not discriminate but would be simply a result of the nature of genetic inventions.[54] But genetic sequences are undeniable tangible products when they are made available to the public in isolated form, even though their primary value lays in the information they encode. Denying them the characteristic of a product and positing that the disclosed function is the product appears arbitrary and refuted by the well-known fact that one sequence can be responsible for several functions.[55] Even though in most cases, the inventor's contribution will not be the isolation of a sequence, but the decoding of the functional relationship between gene and protein, limiting the protection of patents would not be appropriate in cases where the making available of the gene sequence was inventive[56] and diverge from ordinary patent practice. Another parallel can be drawn to the field of chemical inventions, especially the field of pharmaceuticals, where the primary chemical structure alone is not necessarily determinative for a compound's effect. The effect of precursor drugs, metabolites, polymorphs and racemates often results from a partial

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[52] *Cf.* Canada-Pharmaceutical products, *supra* note 33, at 7.92. *See also* DINWOODIE/DREYFUSS, *supra* note 34, at 449 (seeing merit in such objective while questioning its basis in the agreement or negotiation history).

[53] JAFFE/LERNER, *supra* note 52, at 204 (reporting a decline of patent application in the IPC class that was submitted to double review while the patent applications for business methods more broadly defined continued to rise and deducing therefrom that 'applicants have been going out of their way to classify their patents outside the class targeted for special (more rigorous) treatment).

[54] *Cf.*, *e.g.* SCHRELL, 2001 GRUR 782, 785 *et seq.*

[55] *See also* FELDGES, Ende des absoluten Stoffschuztes? – Zur Umsetzung der Biotechnologie-Richtlinie, 2005 GRUR 977, 983; WHITE, Problems of Patents for Research Tools, 4 Bioscience L. Rev. 138 (1998/1999).

[56] STRAUS, An updating concerning the protection of biotechnological inventions, *supra* note1, at 184 *et seq.*

compound that materializes only as a result of a particular biological interaction with the human organism.[57]

The second line of argumentation starts from a gene sequence's possibility to code for more than one protein as between 33% and 59% of human genes are multifunctional due to the phenomenon of alternative splicing.[58] A 'normal' product patent on a gene sequence would cover all uses of the gene sequence; consequently, a license to the patent would be needed for all uses discovered later. However, the mere fact of a high number of dependent inventions in the field of genomics – even if arguably higher than in other technical fields – cannot justify a different treatment.[59] Even assuming that multi-functionality would be a justifiable criterion for the distinction, it is neither a characteristic trait that is inherent to *all* gene sequences, nor, for that matter, one that is limited the field of gene technology.

The subsequent argument, that the likelihood of multiple dependent inventions as well as the needed access to numerous research inputs warrant a different treatment lest the patenting in the field of genetic inventions negatively impact biomedical research, must seemingly carry more weight in view of the importance of public health emphasized in various provisions of the TRIPS Agreement and the Doha Declaration. However, as elaborated above, public health concerns alone cannot justify derogation from the non-discrimination requirement as the prohibition of such discrimination of the field of pharmaceutical inventions was one or the primary reasons for the adoption of the non-discrimination requirement. A criterion for drawing a distinction must be an inherent characteristic of the technical field.

Furthermore, the concerns of a negative impact on biomedical research have not been validated. Several empirical studies have shown that the existence of patents for genes so far had only an insignificant negative impact on biomedical research as researchers in the biomedical field have found working solutions.[60] Even where specific research projects are discouraged or blocked by the existence or exercise of a particular gene patent, the impact on social and economic welfare, whose furtherance is one of the objectives under Article 7, depends on the productivity of the alternative research project a researcher pursues with the time and resources available to him. The necessity of pursuing a different research trajectory can also result

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[57] *See also* HANSEN, Hände weg vom absoluten Stoffschutz – auch bei DNA-Sequenzen, 2001 Mitteilungen der deutschen Patentanwälte (Mitt.) 477, 482 (referring to Omeprazol, Enalapril, Terfenadin as examples).

[58] *Cf.* SOREK/MOR, Piecing together the significance of splicing, 19 Nat. Biotech 196 (2001); JOHNSON ET AL., Genome-wide survey of human alternative pre-mRNA splicing with exon junction microarrays, 302 Science 2141 (2003).

[59] *See also* STRAUS, Abhängigkeit bei Patenten auf genetische Information – ein Sonderfall?, 1998 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 314, 319 (finding that a higher occurence of dependent inventions does not justify different treatment).

[60] *Cf.* CAULFIELD ET AL., Evidence and Anecdotes: An Analysis of Human Gene Patenting Controversies, 24 Nature Biotech. 1091 (2006) (reviewing data from several empirical studies); HOPKINS ET AL., DNA patenting: the end of an era?, 25 Nature Biotech. 185 (2007) (presenting data from their own empirical study and reviewing data of other studies).

in a positive effect on net welfare, especially in view of the fact that there is overall an excess overlap of research portfolios in genomic research.[61]

The only area where a significant negative impact has been found is the area of genetic testing, which has been brought to the public's attention by Myriad Genetics's highly controversial use of its BRCA1 and BRCA2 patents.[62] Though a restriction of the scope of product patents to the disclosed purpose could reduce the problem, it would not have prevented the BRCA1 and BRCA2 controversies as they relate to the function disclosed in the patents.

Article 27(2) TRIPS cannot serve as a justification for the limiting the scope of gene patents to the disclosed purpose either.[63] Even if it could justify the mere *curtailment* of patent rights and not only their exclusion from patentability, such curtailment/exclusion would necessarily presuppose that the national law prohibits the exploitation of this group of inventions.[64] While the exploitation of certain genomic technologies, such as methods for cloning of human beings, are prohibited, there is certainly no prohibition of the exploitation of all gene sequences which would be necessary to justify an exclusion from patentability under Article 27(2). To the contrary, the use of gene sequences as research tools or in therapeutic application is strongly desired to advance public health and biomedical research.

To be sure, Article 27(3) permits derogation from the non-discrimination requirement. However, Article 27(3)(a) does not relate to an exclusion or curtailing of *product* protection for certain technical fields but to certain *methods* of treatment of humans or animals; their exclusion (*e.g.* the exclusion of methods for gene testing or gene therapy[65]) would not affect the patentability of the equipment and substances – in the present context: genes – used therein.[66] Where the patenting would lead to a *de facto* monopolization of a method is excluded from patentability under the corresponding national provision, which is a danger in case of diagnostics, recourse may be taken to compulsory licensing.[67] Likewise, as Article 27(3)(b) only

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[61] SAMPAT, Genomic Patenting by Academic Researchers: Bad for Science?, at note 18 (2004); CAULFIELD ET AL., supra note 61, at 1093.

[62] *See* in detail HERRLINGER, Die Patentierung von Krankheitsgenen – dargestellt am Beispiel der Patentierung der Brustkrebsgene BRCA 1 und BRCA 2 (2004). *See* also CAULFIELD ET AL., supra note 61, at 1093 (finding that the BRCA1 and BRCA2 controversies is the most publiziced controversy in gene patenting).

[63] *But see* SOMMER, *supra* note 4, at 49 (finding that Article 27(2) alone would justify 'any special treatment of gene patents as recognised in the [Biotech-]Directive Art. 5(3)' and determining that the requirement of disclosing and claiming the technical use of a gene sequence does not constitute discrimination).

[64] STRAUS, *supra* note 3, at 182; CORREA, *supra* note 3, at 291.

[65] *See, e.g.* the proposal for a Genomic Research and Diagnostic Accessibility Act of 2002, H.R. 3967, 107th Congress, 2nd Sess., Introduced on March 14, 2002, available at <http://thomas.loc.gov/cgi-bin/query/z?c107:H.R.3967:>. The lapsed proposal would have introduced a new Section 271(j) exempting from infringement the use of genetic sequence information for research for non-commercial entities, and the extension of the medical practitioners' privilege codified in § 287(c)(2) to include 'the performance of a genetic diagnostic, prognostic, or predictive test'.

[66] STRAUS, *supra* note 3, at 184.

[67] *See also* CORREA, *supra* note 23, at 292.

permits the exclusion from patentability of plants, animals and some related processes, it cannot serve as basis for a restriction of the patent scope of gene patents.

4.4 *De Facto* Discrimination v. Permissible Differential Treatment

As pointed out in the preceding sections, the non-discrimination requirement does not prevent members from treating different situations differently when the differentiation is based on factors other than an invention's belonging to a specific technical field. However, beside barring *de jure* discrimination where legislation explicitly provides for different treatment of a specific technical field, the prohibition of discrimination also prohibits *de facto* discrimination. In *Canada-Pharmaceutical Products*, the panel defined *de facto* discrimination as a general concept 'describing the legal conclusion that an ostensibly neutral measure transgresses a non-discrimination norm because its actual effect is to impose differentially disadvantageous consequences on certain parties, and because those differential effects are found to be wrong or unjustifiable.'[68]

4.4.1 Differentially Disadvantageous Consequences

Under the assumption that the non-discrimination requirement should be interpreted structurally in that it also applies to exemptions under Article 30 and compulsory licensing provisions under Article 31,[69] a slightly modified version of Article 40b Swiss Patent Act may serve as an example of an ostensibly technology-neutral measure:

> Whoever intends to use a patented […] invention as an instrument or means in research, is entitled to a non-exclusive licence.

It shall be mentioned only in passing that the original provision clearly appears to violate Article 31(a) and its requirement to consider the grant of a compulsory license on individual merits as it seems to remove any discretion as to *whether* a compulsory license should be granted and leaves discretion only with regard to the terms of the license. More importantly, and similar to the narrow tailoring of the European *Bolar*-exemptions,[70] the application of the original provision is explicitly

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[68] Canada-Pharmaceutical products, *supra* note 33, at para. 7.94, 7.101

[69] *Cf. id.*, paras 7.85 *et seq.* Whether Article 27(1) should be interpreted structurally is subject of considerable dispute. *See* DINWOODIE/DREYFUSS, Diversifying Without Discriminating: Complying with the Mandates of the TRIPS Agreement, 13 Mich. Telecomm. Tech. L. Recv. 445, 448 *et seq.* (2007); SHANKER, The Vienna Convention on the Law of Treaties, the Dispute Settlement System of the WTO and the Doha Declaration on the TRIPs Agreement, 36 Journal of World Trade 721, 745 *et seq*. (2002); CORREA, supra note 23, at 283 *et seq.* (all arguing against a structural effect of Article 27(1)).

[70] *Cf., e.g.*, in Section 11 No. 2b German Patent Act, which exempts from infringement '[s]tudies and trials … necessary to obtain a permission … *according to the effective pharmaceutical regulations*.' (emphasis added). In similar vein, Art. 9 c Swiss Patent Act, *supra* note 20. The provisions have been introduced to implement Art. 10(6) of Council Directive 2004/27/EC amending Directive 2001/83/EC on the Community code relating to medicinal products for human use, [2004] OJ L 136, p. 34.

limited to a single technical field as it uses the wording 'a patented *biological* invention', thus applies only to the use in research of inventions from the field of biotech, and does not exempt other research tools such as lasers or microscopes.

However, it is questionable whether the provision would survive scrutiny even without this express limitation. Making compulsory licenses available for any invention's use in research, while ostensible technology-neutral, has a considerable greater impact on the field of biotechnology due to the research intensity and the high number of inputs and research tools used in an average biomedical research project, as a significantly higher number of research tools will be affected.

The same holds true for the experimental use exception codified in Article 28 Sec. 1(b) Belgium Patent Act, whose newly reworded and broadened wording exempts from infringement acts carried out for scientific purposes *on* or *with* the subject matter of the invention.[71] Even more, exempting the use of inventions in scientific research will have only limited economic consequences for most technical fields where research tools are staple products that are most commonly obtained by acquisition, thus indirectly creating income for the inventor despite the exemption as commercial manufacture is not exempted. By contrast, a significant part of biomedical research tools can and will be easily engineered by the researcher herself without any compensation for the inventor.

Thus, the differentially disadvantageous treatment that both provisions bring upon research tool owners in the field of biotechnology fulfils the first requirement of *de facto* discrimination.

4.4.2 The Second Element – Discriminatory Intent

Additionally, the panel seemed to require some element of discriminatory intent, which had to be deduced from the 'objective characteristics' of the ostensibly neutral measure.[72]

Both provisions have been adopted as part of the implementation of the Biotech-Directive and were intended primarily to address the perceived negative impact of patents on biomedical research.[73] In *Canada-Pharmaceutical products*, however, the panel rejected finding discriminatory intent which is based only on 'preoccupation with the effect of a statute in one area' and as long as its application to a broader field is not a 'sham, or of no actual or potential importance'.[74]

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[71] Art. 28 Section 1(b) reads in its original language: 'Les droits conférés par le brevet ne s'étendent pas…. b) aux actes accomplis à des fins scientifiques sur et/ou avec l'objet de l'invention brevetée.' For a detailed analysis of the provision *see* VAN OVERWALLE/VAN ZIMMEREN, Reshaping Belgian Patent Law: The Revision of the Research Exemption and the Introduction of a Compulsory Licence for Public Health, 64 IIP Forum 42-49 (2006).

[72] Canada-Pharmaceutical products, *supra* note 33, para. 7.101.

[73] With regard to the Belgian provision, *confer* VAN OVERWALLE/VAN ZIMMEREN, *supra* note 72, at 42-43. For the Swiss proposal, *see*, *e.g.*, Botschaft zur Änderung des Patentgesetzes und zum Bundesbeschluß über die Genehmigung des Patentrechtvertrags und der Ausführungsordnung of November 23, 2005, at 69 *et seq.*, 77.

[74] Canada-Pharmaceutical products, *supra* note 33, para 7.104.

Consequently, the demonstration of a legitimate purpose for the differential treatment should be sufficient to negate an element of discriminatory intent.[75] In view of the Doha Declaration on TRIPS and public health, the principles and objectives can be given significant importance, and public health concerns, *e.g.* the desire to facilitate improved access to biomedical research tools would certainly be deemed a legitimate purpose, even if one may not consider curtailing patent protection for research tool patents a suitable approach.[76] While both provisions would likely pass as non-discriminatory under Article 27(1), the Belgian provision appears to violate Article 28 as the exemption for the use of inventions for research purposes constitutes a significant incursion on the rights of research tool patent owners that could hardly be qualified as a limited exception permissible under Article 30.[77]

5. Conclusion

Restricting the scope of gene patents to the disclosed purpose while maintaining the principle of absolute product protection for all other technical fields violates the non-discrimination requirement of Article 27(1). Under a strict interpretation that prohibits even differential treatment of a field of technology, legislation that is passed in Germany, France, Italy and Switzerland undoubtedly violates Article 27(1) as the criterion for the differential treatment is an invention's belonging to the field of gene technology. However, even when broadly interpreting Article 27(1) to permit justified differential treatment based on an invention's belonging to a particular technical field, the reasons predominantly given do not seem to justify such differential treatment.

Lastly, from a practical point of view, using the fact that the object of the invention is a 'gene' as the basis for a legal categorization does not appear very helpful in view of the fact that the concept of the 'fuzzy entity' gene – which has been defined differently by members of different biological disciplines and modified over time as new biological insights have become known[78] – is becoming more and more evanescent.[79] Technology-specific legislation is backwards oriented and bears the danger of becoming obsolete or ill-fitting with the progress of technology. Legislation should be adopted with a view to the future and address the underlying issues in a technology-neutral fashion to allow its direct application to new technologies.

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[75] *Id.*, para. 7.94 (Stating that the standards by which a justification for differential treatment would be measured were a 'subject of infinite complexity'); DINWOODIE/DREYFUSS, *supra* note 34, at 452 *et seq.*

[76] *See* PRINZ ZU WALDECK UND PYRMONT, Research Tool Patents after Merck v. Integra – Have They Reached a Safe Harbor?, 14 Mich. Telecomm. & Tech. L. Rev. 367, 416 *et seq.* (2008).

[77] *Id.*, at 429 *et seq.*

[78] *Cf.* HOLMAN, The Impact of Human Gene Patents on Innovation and Access: A Survey of Human Gene Patent Litigation, 76 UMKC Law Rev. 295, 307 *et seq.* (2007)

[79] The notion of 'gene', which has been termed a 'fuzzy entity' already several years ago, further has been called into question by recent scientific insights, *see*, *e.g.*, PERSON, What is a Gene?, 441 Nature 399 (2006); PENNISI, DNA Study Forces Rethink of What It Means to Be a Gene, 316 Science 1556 (2007).

Effects of the German Law on Employees' Inventions when Posting Employees Within the European Union

Kurt Bartenbach, Franz-Eugen Volz, Markus J. Goetzmann

In the globalized world economy, the law on employees' inventions is no longer a mere national issue. One of the merits of Joseph Straus whose jubilee is celebrated herein is to have realized at an early point in time the importance of transboundary effects of the law on employees' inventions and to have worked on the legal issues related thereto.[1]

This is all the more creditable in view of the lack of uniform international regulations governing this legal area and the missing harmonization of the laws on employees' inventions. Such uniformity or harmonization cannot be expected in the near future either (*see* section 1 below). In appreciation of his pioneer approach which strongly influenced any subsequently arising discussions, this contribution shall be dedicated to Joseph Straus.

The posting of employees working in research and development at companies abroad, *e.g.* cooperation partners or other companies belonging to the same group, has meanwhile become usual practice. The applicability of the law of employees' inventions depends on the specific definition and qualification of such secondment (*see* sections 2 and 3 below).

The agreements between the parties on how to define and qualify the secondment are governed by the conflict of law rules. Since the regulations on employees' inventions are – under the prevailing opinion – deemed mandatory provisions for the protection of employees,[2] the parties involved are subject to certain restrictions in regards to their choice of law. When posting employees from Germany, the different national regulations governing employees' inventions may collide (*see* section 4 below).

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[1] STRAUS, Die international-privatrechtliche Beurteilung von Arbeitnehmererfindungen im europäischen Patentrecht, 1984 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 1-7; STRAUS, Rechtsvergleichende Bemerkungen zum Begriff des Arbeitnehmererfinders, 1984 GRUR Int. 402-406.

[2] HELDRICH, in: PALANDT (ed.), Kommentar zum Bürgerlichen Gesetzbuch und Nebengesetzen, Article 30 EGBGB (German Private International Law), note 6 (67th ed. 2008); MAGNUS, in: STAUDINGER (ed.), Kommentar zum Bürgerlichen Gesetzbuch mit Einführungsgesetz und Nebengesetzen, Article 30 EGBGB, note 79 (13th ed. 2002); MARTINY, in: Münchener Kommentar zum BGB, Article 30 EGBGB, note 97 (4th ed. 2006); *see* also GAUM, Patent- und Urheberrecht: Arbeitnehmererfindungen und Hochschullehrerprivileg in Verträgen der Universitäten mit Industriepartnern aus der Europäischen Gemeinschaft – Geltung ausländischen Rechts, 1991 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 805, 806.

1. Lack of International Provisions Governing Employees' Inventions

1.1 No Transboundary Regulations Governing Employees' Inventions

Even though about 90% of all inventions for which patents are filed were made by employees,[3] international patent law conventions such as *e.g.* the TRIPS Agreement, the Paris Convention for the Protection of Industrial Property or the Patent Cooperation Treaty do not contain any regulations on employees' inventions.

Solely Article 60(1), 2nd sentence of the European Patent Convention gives a provision relating to employees' inventions which, however, is a mere conflict rule for determination of the specific national law to be applied in the respective individual case. The actual problems regarding employees' inventions were deliberately excluded from the harmonization approach at that time, leaving them for national regulation.[4]

For transboundary constellations, any questions regarding the assignment of rights in the invention or remuneration will have to be answered in light of the respective (differing) national regulations governing employees' inventions.

1.2 Lack of Harmonization of the Laws on Employees' Inventions

Harmonization of the laws on employees' inventions has been considered and claimed since the early days of the European Community.[5] Joseph Straus has submitted some valuable suggestions on this issue.[6] Indeed, the first harmonization approach in the late 1970s resulted in a comprehensive description and statement on the differences between the existing national laws and also produced a working draft for harmonization, containing so-called elements of orientation.[7] However, this proposal that was based on the German law concept was broadly rejected and ended up in dropping the harmonization issue on the European level.

Some 20 years later, the European Commission resumed discussion of the subject in its Green Paper on Community patents and the European patent protection

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[3] *See* BARTENBACH/VOLZ, Arbeitnehmererfindergesetz, Kommentar, Einl. ArbEG (German Employees' Inventions Act), note 2 (4th ed. 2002); GODENHIELM, Employee Inventions, in: International Encyclopaedia of Comparative Law, Volume XIV: Copyright and Industrial Property, Chapter 7, at note 3 (1975); JONCZYK, Employee Inventions, 20 IIC 847, 848 (1989); UBERTAZZI, Die Zuordnung von Arbeitnehmererfindungen im italienischen Recht, 1986 GRUR Int. 365; LE STANC, The new French Law on employees' inventions, in: PHILLIPS (ed.), Employees' Inventions, 41 (1981).

[4] CRONAUER, Das Recht auf das Patent im Europäischen Patentübereinkommen, 111 *et seq.* (1988); STRAUS, *supra* note 1, at 6.

[5] NEUMEYER, Die Arbeitnehmererfindung in rechtsvergleichender Sicht, 1962 GRUR. Int. 65, 75; WEINMILLER, Bemerkungen zum Arbeitnehmererfinderrecht in der EWG, 1975 GRUR Int. 381, 383 *et seq.*

[6] STRAUS, Arbeitnehmererfinderrecht: Grundlagen und Möglichkeiten der Rechtsangleichung, 1990 GRUR Int. 353-366.

[7] RAMM, Vergleichende Untersuchung über das Recht der Arbeitnehmererfindung in den Mitgliedstaaten der Europäischen Gemeinschaften (1977).

system,[8] but again dropped any new harmonization approach within the following two years.[9] Indeed, such (preliminary) abandonment of harmonization considerations is neither reasonable from an economic-political point of view, nor is it convincing in a legal respect.[10] However, the Commission is not expected to give a new impulse to harmonization in the measurable future.

The AIPPI (Association Internationale pour la Protection de la Propriété Industrielle) also dealt with the laws on employees' inventions and the differences between the existing national systems in the summer of 2004. In the final Congress's statement, the majority of the attending national groups – in view of the existing differences between the individual national legislations – argued for an international harmonization.[11] However, when considering the individual national statements in more detail, it becomes quite clear that the states are only more or less willing to support such harmonization and all states are reluctant to adjust their own national laws.

1.3 Relevance of the National Regulations on Employees' Inventions

Since there is no uniform international legislation governing employees' inventions and – for the time being – harmonization will not take place either, any specific issues in a transboundary constellation such as the assignment of rights in the invention or remuneration must be handled in accordance with the respective national regulations involved – which may differ from time to time. The question as to which national regulations will apply, is to be answered under the principles of the conflict of laws rules.

2. Options for Agreements when Posting Employees

2.1 Determination of the Relevant Employer

First, it has to be pointed out that any legal issues relating to employees' inventions must solely be resolved between the employer and the employee. Such basic principle governing the law on employees' inventions also remains applicable where employees are posted and even where employees are posted within the same group. For not the group as such is the actual employer but one single company of such a group.[12]

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[8] European Commission, Greenpaper on the Community Patent System in Europe, COM (1997) 313 final, 21.

[9] Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee, February 5, 1999, COM (1999) 42, 1999 OJ EPO 197, 214 *et seq.*

[10] GOETZMANN, Die Harmonisierung des Arbeitnehmererfindungsrechts in der Europäischen Union, 174-187 (2008).

[11] AIPPI, Summary Report Q 183, Employers' rights to intellectual property, 6 *et seq.*

[12] BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 129; German Federal Labor Court (Bundesarbeitsgericht, BAG), October 14, 1982, 2 AZR 568/80, 1983 Der Betrieb (DB) 2635; Arbitration Board (Schiedsstelle), October 10, 1989, Arb.Erf. 37/89 (unpublished); *see* also BARTENBACH, Zwischenbetriebliche Forschungs- und Entwicklungskooperation und das Recht der Arbeitnehmererfindung, 66 *et seq.* (1985).

Therefore, determining the relevant employer is the first step to be taken before answering – in the second step – the question which specific substantive regulations on employees' inventions are to be applied in the respective individual case. The question which company is to be deemed the 'real' employer of the inventor employee will depend on the specific definition and qualification of the secondment.

2.2 Duration of Secondment

The parties may agree on the duration of a secondment at their own discretion. In principle, there may either be a temporary or an unlimited secondment. In the case of unlimited secondment, the parties agree that the employee will work abroad for an indefinite period of time; there is no definite intention to return. In such a case, employment with the posting company is usually deemed terminated and a new exclusive employment with the host company abroad is deemed to be constituted. In fact, it would be more appropriate to rather call this a change of employer than a secondment or posting of employees.

The key aspect is whether the parties involved – when entering into the secondment agreement – want the employee to return or not. It is, however, of no relevance how long the secondment shall last. In the past, it was assumed from time to time that the decision whether the secondment is deemed a permanent or a mere temporary one actually depends on the duration of such stay abroad.[13] This legal approach was rightly denied by the prevailing opinion[14] and cannot be supported in light of the revised version of Article 6 of the Rome I Regulation.

Such revised Article 6 shall now make clear – by so supplementing the existing regulation under Article 6(1) of the Rome Convention – that the 'engagement abroad is to be deemed a temporary one if the employee – after completion of work performance abroad – is obliged to resume work in the original posting country.' In fact, this will be the case if the parties stipulate in the respective secondment agreement that the employee will return to the posting company after expiry of the agreed secondment.

Article 6(1) of the Rome I Regulation also makes clear that 'the conclusion of a new employment agreement with the original employer or another employer belonging to the same group as the original employer does not rule out the option that the employee may temporarily perform his work in another country.' Thus, Article 6(1) of the Rome I Regulation in particular provides guidance on how to

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[13] GAMILLSCHEG, Ein Gesetz über das internationale Arbeitsrecht, 1983 Zeitschrift für Arbeitsrecht (ZfA) 307, 333 (3 years); FRANZEN, IntArbR, AR-Blattei 920 note 76 (2-3 years); VON HOFFMANN, Internationales Privatrecht, Section 10 note 81 (7th ed. 2002) (12-24 months).

[14] German Federal Labor Court (Bundesarbeitsgericht, BAG), May 9, 1959, 2 AZR 474/58, 1959 Neue Juristische Wochenschrift (NJW), 1702; MARTINY, in: REITHMANN/MARTINY, Internationales Vertragsrecht, note 1888 (6th ed. 2004); SCHLACHTER, Grenzüberschreitende Arbeitsverhältnisse, 2000 Neue Zeitschrift für Arbeitsrecht (NZA) 57, 59; LORENZ, Das objektive Arbeitsstatut nach dem Gesetz zur Neuregelung des Internationalen Privatrechts, 1989 Recht der Arbeit (RdA) 220, 233.

interpret the situation in the case of secondment within a group. However, such principle must – beyond the wording of the aforesaid provision – also apply in the case that an employment agreement is entered into with some other employer. There is no reason to differentiate the case that a new employment agreement is concluded with an employer abroad who does not belong to the same group as the posting company. According to the proposal for the Regulation, one must have particular regard to the intention of the parties at the time of conclusion of the secondment agreement.[15]

2.3 Options for Secondment Agreements

In the case of temporary secondment of employees, the following constellations may occur:

1) Only the employment relationship with the respective employer will subsist. The employee still solely performs the tasks assigned to him for his original (*i.e.* the posting) employer with the host company abroad.
2) The employment relationship with the posting company is terminated for the duration of secondment. During such a period, there is no other employment relationship than that with the host company abroad.
3) There are employment relationships with both companies. The employee enters into an employment relationship with the host company abroad; in addition, the employment relationship with the posting company subsists even during the period of secondment. Such continuing employment relationship with the posting company may be
   a) either an active employment relationship in that the employee (also) performs tasks for the posting company, or
   b) a suspended employment relationship in that the primary duties of performance thereunder are suspended for the duration of secondment.

Which of these constellations applies will depend on the individual – explicit or implicit – agreement between the parties as to the secondment of the employee.

2.3.1 Employer's Right to Give Instructions

In practice, employers rarely post an employee for performing his tasks abroad without a specific individual agreement, *i.e.* by mere unilateral instruction given to the employee. Such practice may only occur in the case that the original employment contract already contains a clause granting the employer extensive rights to give instructions on the details of performance of the tasks, including the right to instruct the employee so as to temporarily perform his work abroad. Even though the employer may under the relevant national regulations possibly be entitled to determine time and place of work performance within the scope of employer's

[15] European Commission, Proposal for a Regulation of the European Parliament and the Council on the law applicable to contractual obligations (Rome I), December 15, 2005, COM (2005) 650 final, 8.

rights to give instructions,[16] it must be assumed that the posting of an employee for work performance abroad amounts to a considerable modification of and interference with the originally agreed place of work which is not covered by the employers' general right to give instructions as provided in Section 315 BGB (*German Civil Code*), unless explicitly agreed between the parties.

If a clause granting the employer such extensive rights of instruction was agreed, the situation described in the preceeding paragraph will apply, unless the parties stipulate to the contrary by supplementary agreement: The employment relationship with the posting employer will subsist and the employee – in performing his (research) tasks with the host company abroad – will still (solely) perform his duties resulting from the employment relationship with the posting company.

2.3.2 Amendment to an Existing Employment Agreement

If the employment agreement does not contain an extensive clause on employer's instruction rights, the temporary secondment agreement between the employer and the employee constitutes an amendment to the existing employment agreement between the parties. Since – under German employment regulations – neither the employment agreement nor any amendments thereto are subject to specific form requirements, such supplementary agreement may, in principle, be concluded without observance of a specific form.[17]

The specific contractual agreement and definition of secondment of an employee will depend on the individual interests of the parties involved, i.e. of both companies involved and the employee. The respective interests of the individual parties may collide.

From the point of view of the companies involved, it must be clearly stipulated which of the two companies shall be entitled to claim the inventions of the employee, if any. If and to the extent that the entitlement to such inventions involves the obligation to pay remuneration to the employee, it must also be agreed which company shall actually be obliged to pay such remuneration.[18] The acquisition of rights may also entail obligations under tax and accounting law, which also needs to be considered by the companies involved when drafting the secondment agreement.

From the employee's point of view, the secondment agreement must – in addition to general provisions (as to change of domicile, usual remuneration) – also con-

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[16] In Germany, Section 106 GewO (*Industrial Code*) provides that the employer may, within reasonably exercised discretion, give detailed instructions on the subject, place and time of work performance.

[17] This is true except for the case that the employment agreement contains a so-called double written form requirement, *i.e.* a clause by which the parties agree that modifications or amendments of the agreement require written form for being valid and that such requirement of written form also applies in the case that the written form clause as such shall be canceled or modified.

[18] This may be either a regulation with effect to the employee, depending on the respective position of the employer, or an internal regulation for compensation with effect as between the two companies only.

tain regulations on tax issues and in particular social security issues.[19] For ensuring in particular social security of the employee and possible claims to company old age pension, the parties in practice hardly ever agree on a termination of the employment relationship with the posting company but continue their relationship as a suspended employment at least.

Suspension of an employment relationship means that the latter is continued but the mutual primary duties, namely the duty to perform work and the duty to pay remuneration, are suspended, whereas accessory duties and duties of good faith remain in force. An agreement for suspension of a domestic employment relationship does not require any specific form by law either so that the existence of a suspension agreement may even be derived from the implied will of the parties.

However, the parties may also explicitly agree that the domestic employment relationship shall remain in full force, including the primary duties of the parties. Such an agreement may also be concluded from the specific circumstances of the respective individual case (*e.g.* if the employee – even abroad – performs specific tasks in accordance with the working instructions from the posting company and is still subjected to the right of the posting company to give instructions). Thus, the employment relationship with the posting company remains in full force, including all primary and accessory duties.

2.3.3 Agreement with the Host Company Abroad

Regarding the relation with the host company, it must be considered whether a separate employment agreement is entered into. Such an employment relationship between the host company abroad and the posted employee may even be established without an express agreement. This is the case when it must be concluded under the relevant conflict of laws rules that there is such a close relation between the posted employee and the host company abroad that – when considering all aspects of the respective individual case from an objective point of view – an employment relationship must be deemed established between the parties involved.[20]

3. Law on Employees' Inventions and Conflict of Laws Rules

After determining which of the companies involved in an employment relationship is established, it must be decided under the conflict of laws rules which specific substantive law on employees' inventions is to be applied within such an employment relationship. Apart from the special provision in Article 60 EPC, this question must be answered in accordance with the general principles under the conflict of laws rules.

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[19] The Regulation 883/2004 dated May 20, 2004, is expected to take effect in 2008, following a corresponding implementation regulation and replacing the existing Social Security Regulation 1408/71.

[20] *See infra* 3.3.1.

3.1 Special Provision Under Article 60(1), 2nd sentence EPC

Article 60(1), 2nd sentence EPC contains (the only) special conflict of laws provision which relates to employees' inventions. Regarding the question of entitlement to European patents, it refers to the law of the country where the employee is mainly employed. If it cannot be definitely determined in which country the employee is mainly employed, the the law to be applied shall be that of the State in which the employer has his place of business to which the employee is attached.

However, the scope of Article 60 EPC is limited: Firstly, it only applies to applications for registration which are filed under the EPC. For all other applications, the genereal conflict of laws principles as mentioned below will apply. Secondly, Article 60 EPC merely refers to the question who is entitled to the patent, *i.e.* the question of ownership of rights. Any other issues regarding employees' inventions (*e.g.* remuneration issues) are not covered by Article 60 EPC and thus need to be decided under the general conflict of laws principles.

Due to its restricted applicability[21] Article 60(1), 2nd sentence EPC will not be taken into account in the subsequent explanations. Moreover, Article 60(1) EPC regularly will result in the same determination of the applicable law as the general rules, since Article 60(1) EPC – when interpreted correctly – must be deemed a provision referring to the entire respective national law, including the corresponding conflict of laws rules under such national law.[22]

3.2 Employment Regime as Relevant Connection

Employees' inventions are intellectual property rights created within an employment relationship. Thus, legislation on employees' inventions is at the interface between employment law on the one hand and intellectual property law on the other hand.[23] These two legal areas are subject to different requirements of connection to determine the applicable municipal law under the conflict of laws rules.

Regarding employment law, the conflicts of laws rules – in Germany as well as in other legal systems – refer to the employment regime, *i.e.* the municipal law applicable to the respective individual employment relationship. Within the European Union Article 6 of the EC Convention on the Law Applicable to Contractual Obligations, dated June 19, 1980 (Rome Convention)[24] will apply. In Germany, this rule has been implemented in Article 30 EGBGB. The (revised) Rome Convention is about to be incorporated as directly applicable EU law, namely by adoption of the

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[21] BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 35; ROTHER in: REIMER/SCHADE/SCHIPPEL, Das Recht der Arbeitnehmererfindung – Kommentar, Section 1 ArbEG, note 14 (8th ed. 2007); STRAUS, *supra* note 1, at 6.

[22] STRAUS, *supra* note 1, at 4-6; for a thorough examination of Article 60(1) EPC *see* CRONAUER, *supra* note 4; GOETZMANN, *supra* note 10, at 58-70.

[23] For the different approaches of classification *see* German Federal Supreme Court (Bundesgerichtshof, BGH), September 18, 2007, X ZR 167/05, 2008 GRUR 150 – *Selbststabilisierendes Kniegelenk* and BARTENBACH/VOLZ, *supra* note 3, Einl., note 5.

[24] EC Convention on the Law Applicable to Contractual Obligations, 1980 OJ EC L 266, p.1.

so-called Rome I Regulation,[25] whose Article 6 also provides for the employment regime to be the relevant connection for employment law issues. Issues of intellectual property are – under the conflict of laws rules – governed by the principle of territoriality (which is internationally accepted, too). The intellectual property regime for patent related questions is thus to be determined under the legal system of the respective country where the patent enjoys protection (*lex loci protectionis*).[26]

It is generally accepted both in Germany[27] and internationally,[28] that any issues relating to employees' inventions are to be decided under the employment regime. Therefore, in order to determine the applicable national law under the conflict of laws rules, the existence of an employment relationship prevails over the aspects of intellectual property law. This is an appropriate consequence in view of the fact that most legal systems contain provisions for the assignment of rights to the employer, despite differences in detail. Such assignment of rights to the employer is governed by the general principle under employment law which provides that the work results belong to the employer (*cf.* Section 950 BGB) – which constitutes a deviation from the internationally accepted inventor's principle.

The employment regime thus will apply to any issues of ownership of rights or issues of remuneration of the employee for such invention. However, the principle of territoriality governing intellectual property rights will prevail where solely issues relating to patent law such as *e.g.* requirements for creation, contents and expiry of patent rights, the right to designation of the inventor or inventor's personality rights[29] are at stake. In such cases, the respective national patent law of the country where the invention enjoys protection is solely applicable.[30]

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[25] European Commission, Proposal for a Regulation of the European Parliament and the Council on the Law applicable to Contractual Obligations (Rome I), Decemer 15, 2005, COM (2005) 650 final, 8 at note 15.

[26] HIESTAND, in: REITHMANN/MARTINY, *supra* note 14, at note 1740; BAUER, Das Internationale Privatrecht der Arbeitnehmererfindung, 69 (1970); TROLLER, Das internationale Privat- und Zivilprozeßrecht im gewerblichen Rechtsschutz und Urheberrecht, 48 *et seq.* (1952); SACK, Kollisions- und europarechtliche Probleme des Arbeitnehmererfinderrechts, in: BAUER (ed.), Festschrift für Ernst Steindorff zum 70. Geburtstag, 1333, 1335 (1990).

[27] STRAUS, *supra* note 1, at 2; BARTENBACH/VOLZ, *supra* note 1, Section 1 ArbEG, notes 36, 108; ROTHER, *supra* note 21, Section 1 ArbEG, note 14; GAMILLSCHEG, Internationales Arbeitsrecht, 327 *et seq.* (1959).

[28] See BAUER, *supra* note 26, at 72 *et seq.*; TROLLER, *supra* note 26, at 193 *et seq.*; CRONAUER, *supra* note 4, at. 128; SZASZY, International Labour Law, 289 (1968); GODENHIELM, Fragen des internationalen Privatrechts auf dem Gebiete des Patentrechts, 1957 GRUR Int. 149, 155 *et seq.*

[29] For a detailed differentiation between law of contract and the principle of territoriality *see* SACK, Münchener Handbuch zum Arbeitsrecht, Volume 1, Section 101 notes 101-107; GAMILLSCHEG, *supra* note 27, at 328 *et seq.*; BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 36.

[30] BARTENBACH/VOLZ, *id.;* SACK, *supra* note 29, at note 100; GAMILLSCHEG, *supra* note 13, at 362; BIRK, Das internationale Arbeitsrecht der Bundesrepublik Deutschland, 1982 Rabels Zeitschrift für ausländisches und internationales Privatrecht (RabelsZ) 384, 400.

3.3 Article 6 of the Rome Convention

Within the European Union, Article 6 of the Rome Convention will apply for the determination of the law governing employees' invention. This provision will soon be replaced by Article 6 of the Rome I Regulation which will be briefly explained later on (*see* section 3.4).

3.3.1 The Objective Regime of Article 6(2) of the Rome Convention

Pursuant to Article 6(2) of the Rome Convention, the governing law shall be either the law of the country in which the employee habitually carries out his work or, if such habitual place of work cannot be established, the law of the country in which the place of business through which he was engaged is situated. Such – rather inflexible – reference that, in principle, corresponds to the reference made by Article 60(1) EPC will, however, only apply if an overall consideration of all facts and circumstances of the respective contractual relationship (including conclusion of the contract and experienced practice within the contractual relationship) does not suggest a closer relation to any other regime. This 'corrective clause' in Article 6(2) of the Rome Convention shall allow to determine a so-called objective regime, *i.e.* the regime deemed to be most closely related to the case.[31] Application of such regime meets the general intention of the conflict of laws rules which is to ensure application of such regime to the respective individual case which is most closely related to it and can thus be deemed the 'best' regime to be applied.[32]

According to labor courts, the following criteria are deemed relevant facts and circumstances of a specific individual case: the parties' nationality, seat of the employer, governing language, currency of remuneration, place of conclusion of the contract or residence of the employee.[33] The arbitration board for employees' inventions with the 'Deutsches Patent- und Markenamt' (DPMA – *German Patent and Trademark Office*) – briefly referred to as the 'arbitration board' – refers to these criteria, too.[34]

3.3.2 Priority of and Restrictions to the Parties' Choice of law

Pursuant to Article 6(1) Rome Convention, the parties may under the principle of contractual freedom choose any national law to be applied. Such choice of law should be agreed explicitly between the parties for reasons of legal security and

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[31] German Federal Labor Court (Bundesarbeitsgericht, BAG), August 24, 1989, 2 AZR 3/89, 1990 Neue Zeitschrift für Arbeitsrecht (NZA) 841; December 12, 2001, 5 AZR 255/00, 2002 NZA 734. This general principle of Private International Law is also reflected in Article 4 Rome Convention (implemented in Article 28 EGBGB).

[32] KROPHOLLER, Internationales Privatrecht, 24 *et seq.* (6th ed. 2006); KREUZER, Zur Funktion von kollisionsrechtlichen Berichtigungsnormen, 1992 Zeitschrift für Europarecht, Internationales Privatrecht und Rechtsvergleichung (ZfRV) 168 *et seq.*

[33] German Federal Labor Court (Bundesarbeitsgericht, BAG), December 12, 2001, 5 AZR 255/00, 2002 Neue Zeitschrift für Arbeitsrecht (NZA) 734; October 29, 1992, 2 AZR 267/92, 1993 Neue Zeitschrift für Arbeitsrecht (NZA) 743.

[34] *E.g.* Arbitration Board (Schiedsstelle), January 16, 1991, Arb.Erf. 70/90 (not published); July 5, 1991, Arb.Erf. 43/90, 1992 GRUR 499 – *Einheitliches Arbeitsverhältnis*.

contractual clarity. The respective contract may – as a whole – be subjected to a certain national law; however, it is also possible to choose some specific law for some specific parts of the contract. Therefore the parties may choose the entire contract to be governed by a certain national law A (*e.g.* the law of the country of the host company), but at the same time any issues regarding employees' inventions can be governed by a certain national law B (*e.g.* the German ArbEG as the law of the home company).

Article 3(1) Rome Convention (Article 27 EGBGB) provides that the parties may not only explicitly choose some specific national law, but that such choice of law may also be implied. The latter applies if it may with reasonable certainty be stated from the provisions agreed under the contract or the facts and circumstances of the respective case which specific national law was intended by the parties as the law governing the contract.[35] In order to avoid any premature assumption of some specific choice of law that was not actually intended by the parties, such an assumption of an implied choice of law must be based on sufficient circumstantial evidence to be found in the respective contract and in the actual performance of such contract in practice. In the field of employment law, such circumstantial evidence may, in general, be seen in any existing agreement on the place of jurisdiction or in the reference to some specific national law or national collective agreements.[36] In the event that any alleged intention of a parties' choice of law may not be ascertained by such circumstantial evidence, it cannot be assumed that there was an implied choice of law at all, and the law of of the objective regime of Article 6(2) Rome Convention will be applied.

Other jurisdictions outside the EU take the regime governing the respective contract as key point of reference for any related employment law issues, too, and only differ, if at all, in regards to what specific extent a choice of law is admissible.[37]

The parties' freedom to choose the governing law is limited by national mandatory rules for the protection of employees. Article 6(1) Rome Convention rules that the parties' choice of law must not deprive the employee of any protection of mandatory rules under the regime which would have to be applied under paragraph 2 in the absence of a choice of law. The employer being the stronger party shall be prevented from choosing – by unilateral decision and to the detriment of the employee – the law most favorable to him and discriminating the employee by adoption of such law by contractual agreement.[38]

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[35] German Federal Labor Court (Bundesarbeitsgericht, BAG), July 26, 1995, 5 AZR 216/94, 1996 Neue Juristische Wochenschrift (NJW) 741; HELDRICH, *supra* note 2, Article 27 EGBGB, notes 5-7.

[36] German Federal Labor Court (Bundesarbeitsgericht, BAG), *id.*; December 12, 2001, 5 AZR 255/00, 2002 Neue Zeitschrift für Arbeitsrecht (NZA) 734; JUNKER, Internationales Arbeitsrecht in der Praxis im Blickpunkt: Zwanzig Entscheidungen der Jahre 1994-2000, 2001 Recht der Internationalen Wirtschaft (RIW) 94, 96; Schlachter, *supra* note 14, at 59 *et seq.*

[37] *See* STRAUS, *supra* note 4, at 2-3; CRONAUER, *supra* note 4, at 129.

[38] HOHLOCH, in: ERMAN (ed.), Kommentar zum BGB und Nebengesetzen, Article 30 EGBGB, note 1 (11th ed. 2004); MAGNUS, *supra* note 2, Article 30 EGBGB, note 68; HELDRICH, *supra* note 2, Article 30 EGBGB, note 4; *see* also GIULIANO/LAGARDE, Report on the Convention on the law applicable to contractual obligations, BT-Drs. 10/503, 33, 57.

The prevailing opinion in Germany holds that the ArbEG is to be deemed a protective law in favor of the employees and at the same time mandatory law in the sense of Article 6(1) Rome Convention.[39] This is argued in light of Section 22 ArbEG, which deems any preliminary agreement discriminating against the employee void. The employee shall be protected from waiving his statutory rights even before reporting any inventions made by him.

Other jurisdictions also provide that any deviation from statutory regulations governing employees' inventions which would discriminate against the employee is not admissible at all,[40] or is admissible to a certain extent only[41] or from a certain point in time only[42] (which is similar to the German system). If such restrictions are actually imposed by the respective legislation on the freedom of contract, the corresponding provisions governing employees' inventions must – for the benefit of the employees – be deemed mandatory protective law in the meaning of Article 6(1) Rome Convention.[43]

3.3.3 Application of the More Favorable Regime

However, this does not mean that parties may not make a choice of law at all under these circumstances. In fact, the regimes which are, in principle, eligible for application – *i.e.* both the law which was (explicitly or implicitly) chosen by the parties and the objective regime to be determined under Article 6(2) Rome Convention – must be compared to each other under the principle of application of the more-favorable-regime. This general principle governing the conflict of laws rules will apply and finally the rules more favorable to the employee are to be applied.[44]

Yet this will not mean a comparison of the whole employment law schemes of two countries, but only a comparision of the relevant complex of national employ-

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[39] BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 109; HELDRICH, *supra* note 2, Article 30 EGBGB, note 6; MAGNUS, *supra* note 2, Article 30 EGBGB, note 79; MARTINY, *supra* note 2, Article 30 EGBGB, note 97; VON HOFFMANN, in: SOERGEL (ed.), Kommentar zum BGB und Nebengesetzen, Article 30 EGBGB, note 22 (12th ed. 1996); HOHLOCH, *supra* note 38, Article 30 EGBGB, notes 10, 26; SACK, *supra* note 26, at 1343; GAUM, *supra* note 2, at 806.

[40] *E.g.* Austria: Section 17 Patent Act; Hungary: Section 15(2) Patent Act; Greece: Article 6(7) Patent Act. *See* also France (Article L. 611-7 pr. Industrial Property Code), Luxemburg (Section 13(1) Patent Act) and Italy, UBERTAZZI, *supra* note 3, at 368.

[41] The Employees' Inventions Acts of the Scandinavian Countries rule out agreements about certain substantial rights of employees, *see* GOETZMANN, *supra* note 10, at 82 note 310.

[42] *E.g.* Spain: Article 19(2) Patent Act; Portugal: Article 59(9) Industrial Property Code.

[43] GOETZMANN, *supra* note 10, at 76-86.

[44] MARTINY, *supra* note 2, Article 30 EGBGB, note 38; HELDRICH, *supra* note 2, Article 30 EGBGB, note 5; HOHLOCH, s*upra* note 38, Article 30 EGBGB, note 11; MAGNUS, s*upra* note 2, Article 30 EGBGB, note 81; HEILMANN, Das Arbeitsvertragsstatut, 101 *et seq.* (1991); SACK, *supra* note 26, at 1343; HÖNSCH, Die Neuregelung des Internationalen Privatrechts aus arbeitsrechtlicher Sicht, 1988 Neue Zeitschrift für Arbeitsrecht (NZA) 113, 116; DÄUBLER, Das neue internationale Arbeitsrecht, 1987 Recht der Internationalen Wirtschaft (RIW) 249, 253; JUNKER, Die „zwingenden Bestimmungen" im internationalen Arbeitsrecht, 1989 Praxis des internationalen Privat- und Verfahrensrechts (IPRax) 69, 71.

ment law.[45] On the other hand this complex must not be determined too narrow in order to avoid to 'atomize' the individual protective provisions. The protection of employees under Article 6(1) Rome Convention does not go as far as to allow the employee a specific selection of single rules to achieve the best solution for each individual issue (no 'cherry-picking'). With respect to employees' inventions, it is therefore required to compare the entire regulatory complexes governing employees' inventions under both regimes, *i.e.* the (entire) German ArbEG on the one hand and the respective foreign regulations on employees' inventions or, respectively, the entire regulatory complex governing employees' inventions within some specific foreign patent law on the other hand.[46]

3.4 Article 6 of the Rome I Regulation

The pending introduction of Article 6 Rome I Regulation will not bring any substantial change to the afore-mentioned principles. Moreover, it will clarify for secondments that it will primarily depend on the respective contractual agreement between the parties whether a change of the governing employment regime in the case of such secondment is actually intended. The new Article 6 suggests that the parties, in case of doubt, may not be deemed to favor an abandonment of the law governing their employment relationship hitherto, but that it will continue to govern the employment contract, unless an overall consideration of all facts and circumstances of the respective individual case shows a more close relation to any other jurisdiction.[47]

Indeed, the revised version emphasizes *prima facie* the contractual freedom of the parties. However, it also makes clear that a change of the governing law only because of a change of the habitual place of work will be subject to a more restrictive approach in the future. This underlines the continuation of common rules and points out that a stronger preservation of mandatory rules for the protection of employees is considered necessary by the legislator.

4. Posting of German Employees Abroad

Given the different contractual constellations occurring when posting employees,[48] the question whether the German ArbEG is to be applied if German employees are posted abroad must be answered with reference to the contractual relationships entered into with the individual companies. Only after due reference it can be

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[45] Prevailing Opinion, see MAGNUS, s*upra* note 2, Article 30 EGBGB, note 83; MARTINY, *supra* note 14, note 1883; SACK, *supra* note 26, at 1343; HÖNSCH, *supra* note 44, at 116; HOHLOCH, Arbeitsverhältnisse mit Auslandsbezug und Vergütungspflicht, 1987 Recht der Internationalen Wirtschaft (RIW) 353, 358.

[46] SACK, *supra* note 26, at 1344; BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 109 *et seq.*; MARTINY, s*upra* note *2*, Article 30 EGBGB, note 40; MAGNUS, s*upra* note 2, Article 30 EGBGB, note 84; HOHLOCH, *supra* note 45, at 358.

[47] For the parties' common interest *see supra* 2.3.2.

[48] *See supra* 2.3.

decided which specific national law on employees' inventions applies to the respective contract.

4.1 Exclusive Employment Relationship with the Posting Company

4.1.1 ArbEG to Apply Towards the German Employer

If there is only one employment relationship with the posting company and no (second) employment relationship with the host company abroad exists, the ArbEG will continue to govern the employment relationship with the German posting company.[49]

4.1.2 ArbEG not to Apply Towards the Host Company Abroad

The ArbEG, however, will not apply towards the host company abroad with which no employment relationship is entered into. The law on employees' inventions only governs the relationship between employer and employee. However, in the said case, such employer-employee relationship only exists between the employee and the German posting company.

4.2 Exclusive Employment Relationship with the Host Company Abroad

4.2.1 ArbEG not to Apply Towards the German Company

If an exclusive employment relationship exists with the host company abroad only, application of the ArbEG towards the Germany company is excluded for lack of an employment relationship. Accordingly, no foreign employees' inventions law will apply either.

4.2.2 Options for the Application of the ArbEG Towards the Host Company Abroad

It will depend on the specific nature and details of the local employment relationship with the host company abroad whether the ArbEG shall apply to the host company. If the parties decided to choose German employment law to govern the entire employment relationship with the host company, or if they specifically agreed on the German ArbEG to govern issues of employees' inventions law, such agreement is, in principle, deemed a valid choice of law under Article 3 Rome Convention.

The validity of such choice of law may only be doubted under Article 6(1) of the Rome Convention if

(1) German law is not the objective regime to be determined under Article 6(2) of the Rome Convention,

[49] The applicability of the ArbEG towards the national employment relationship insofar is assumed.

(2) the respective regulations on employees' inventions to be applied are – in whole or in part – mandatory law in terms of Article 6 of the Rome Convention and finally
(3) by comparing both regimes it turns out that the provisions of the objective regime are more favorable to the employee than the application of the ArbEG.

Such comparison as to what regime is more favorable to the employee must be made on an abstract basis and may not take into account the facts of the specific individual case, in particular the specific individual demands of the employee.[50] This would entail inconsistent practice in handling such cases because – depending on the specific nature of the invention and the personal perspective of the respective inventor – one employee may possibly prefer an ownership and exploitation of the rights by the employer (providing for extra remuneration of the employee), whereas other employees may prefer the invention to be free (*e.g.* because the objective regime does not grant the employer abroad a right to claim such invention) in order to exploit the invention by himself.

Therefore, the entire German ArbEG and the respective foreign regulations on employees' inventions need to be compared.[51] When comparing the different national regulations governing employees' inventions in the individual European countries, it becomes apparent that the German ArbEG provides a rather extensive protection of the employees when compared to international standards.[52] Thus, the German ArbEG will regularly turn out to be the more favorable regime for the employee.[53] This, in turn, will ensure that the ArbEG will be actually applied and not replaced by any other regime in the case that the parties agreed the application of the German ArbEG for the employment relationship abroad.

In absence of any express choice of law by the parties, the ArbEG will regularly not apply towards the host company. This would require an implied choice of law voting for the ArbEG that will rarely be supported by sufficient evidence. The agreement of an employment contract with the host company rather implies the contrary.

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[50] SCHNITZLER, Das Günstigkeitsprinzip im internationalen Arbeitsrecht, 62 *et seq.* (1974); MARTINY, *supra* note 14, note 1883; KRONKE, Das Arbeitsrecht im Gesetzentwurf zur Neuregelung des IPR, 1984 Der Betrieb (DB) 404, 405; *see* also GAMILLSCHEG, *supra* note 13, at 337 *et seq.*; SACK, *supra* note 26, at 1343 *et seq.*

[51] SACK, *supra* note 26, at 1344; *see* also BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 109 *et seq.*; MARTINY, *supra* note 2, Article 30 EGBGB, note 40; HOHLOCH, *supra* note 45, at 358.

[52] ROTHER, in: REIMER/SCHADE/SCHIPPEL, *supra* note 21, Section 1 ArbEG, note 14; BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 110; SACK, *supra* note 26, at 1345; HEATH, Zur Vergütung von Arbeitnehmererfindungen in Japan, 1995 GRUR Int. 382, 387; SCHADE, Arbeitnehmererfindungen – Kritische Würdigung einiger tragender Grundsätze, 1975 Recht der Arbeit (RdA), 157, 159; SCHIPPEL, Die Grenzen der Privatautonomie im internationalen Arbeitsvertragsrecht und die Arbeitnehmererfindung, 1971 Mitteilungen der deutschen Patentanwälte (Mitt.) 229, 231.

[53] BARTENBACH/GOETZMANN, Europäisches Arbeitnehmererfindungsrecht vs Arbeitnehmererfindungsrecht in Europa, 2006 VPP-Rundbrief 73, 80.

For this very reason, it seems unlikely that the ArbEG can be applied without any corresponding (explicit or implicit) agreement. This could only be the case if German law was deemed the relevant objective regime in the meaning of Article 6(1) Rome Convention. However, this is rather unlikely given the explicit termination of the employment relationship with the German posting company and a new exclusive employment contract with the host company abroad for this clearly shows the intention of the parties that they obviously want to exclude German law from governing their relationship in future.

4.3 Employment Relationships with both Companies

The cases shown above are rather easy to handle as they involve only one employment relationship with either of the two companies. Difficulties may arise, however, if employment relationships are entered into with both companies.

4.3.1 Multiple Employment Relationships

Employment relationships with both companies may be entered into by explicit agreements. Frequently parties agree that the employment contract with the posting employer remains in force and, additionally, agree on a new employment contract with the host company. This double employment is in many cases the common intention of the parties, either with regard to some intended legal commitment towards both companies or due to tax and/or social security requirements or requirements under public law.

A second employment relationship may also be established by implicit conduct, namely by taking into account the actual development of the secondment as well as the contractual practice resulting therefrom. Since, in general, other legislations do not require employment agreements to be concluded in written form either,[54] a second employment agreement may be established by the fact, that the employee – contrary to the original intention of the parties – is ever more closely integrated into the organization of the host company and more extensively receives his assignments and instructions by this company, so that the latter finally takes over the actual enforcement of the employment relationship on its own behalf.

The facts and indications referred to when determining the objective regime in the meaning of Article 6(2) Rome Convention are also of substantial relevance for the assessment, whether an employment agreement has been established between the host company the employee. Yet the criteria to be considered are not the identical: the mere fact that one of the eligible jurisdictions is deemed to be more closely related to the case and thus more appropriate for solving a conflict, does not automatically justify the assumption that the parties' intention was to create a contractual relationship under the regulations of this jurisdiction. It must rather be considered in each individual case whether an ever closer relation between the employee and the host company and the primary handling of employment issues by that host

[54] For details of the respective jursidictions *see* the reports in: HENSSLER/BRAUN (ed.), Arbeitsrecht in Europa (2nd ed. 2007).

company do suggest an implicit intention of the parties to establish an (additional) local employment agreement. The question whether and by what specific circumstances an employment relationship may be constituted between the parties without explicit agreement will, in the end, depend on the regulations under the respective national law.

4.3.2 Application of the 'Sphärentheorie' (Principle of Spheres)

If there are two employment relationships, on the basis of German law it must first be determined – in accordance with the principles of the 'Sphärentheorie' (principle of spheres) – within which specific employment relationship the invention was made: This will also be decisive for the legal character of the invention (service invention or free invention).[55] The application of the 'Sphärentheorie' is also accepted by the arbitration board.[56] According to the principle of spheres it needs to be determined, under which specific capacity and framework, *i.e.* within which specific employment relationship, the employee developed and completed the invention.[57]

The law to be applied to such employment relationship is the law chosen by the parties (taking into account Article 6 Rome Convention), and any issues regarding employees' inventions must be handled and decided on the basis of such law and within such relevant relationship as determined under the 'Sphärentheorie':

- If the invention was made within the employment relationship with the German posting company, the explanations given in section 4.1 above apply *mutatis mutandis*: the ArbEG will apply towards the German employer.
- If, however, according to the results found under the 'Sphärentheorie', the employment relationship with the host company abroad is decisive, such law as is agreed or objectively determined to govern employees' inventions under that employment relationship will apply. In such case, the explanations set forth in section 4.2 above apply *mutatis mutandis*.

Therefore, the general approach in both cases is as follows: After the application of the 'Sphärentheorie' in order to determine which employment relationship is the relevant employment relationship for which the invention occurred, it must be established on the basis of this employment relationship which national law regime is to be applied. Any issues regarding employees' inventions – including report of the invention, ownership of rights or possible special remuneration – have to be handled in accordance with this respective substantive law.

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[55] BARTENBACH/VOLZ, *supra* note 3, Section 1 ArbEG, note 20; ROTHER, *supra* note 21, Section 5 ArbEG, note 13.

[56] Arbitration Board (Schiedsstelle), July 5, 1991, Arb.Erf. 43/90, 1992 GRUR 499 – *Einheitliches Arbeitsverhältnis*; July 1, 1999, Arb.Erf. 49/97 (not published).

[57] Fundamental: VOLMER, Der Begriff des Arbeitnehmers im Arbeitnehmererfindungsgesetz, 1978 GRUR 329, 332.

4.3.3 Collision of Conflicting Legal Systems

However, the 'Sphärentheorie' is no universal solution for solving all cases of conflicting legal systems. The 'Sphärentheorie' was developed with regard to double employment relationships which are both subject to the same substantive law.

However, such a common legal basis is missing in transboundary constellations because two different national systems collide. There are some substantial differences between the individual substantive laws governing employees' inventions in the EU Member States.[58]

4.3.3.1 Conflicting Regulations on Employees' Inventions

The differences between the individual national regulations range from different terminology and definitions (what is deemed a 'service invention' under system A, is not necessarily likewise interpreted as such under system B)[59] to divergent legal consequences, in particular as regards the assignment of rights in the invention and entitlement to the invention and remuneration issues related thereto.

Indeed, all European legal systems pursue the same basic principle which is to solve the systematic conflict between employment law on the one hand and industrial property law on the other hand. Whereas – under employment law – the employer may, in principal, claim and is entitled to the results of the employee's work, the inventor's principle under patent law at first assigns any rights in the invention to such person as performed the creative work on which the invention is based.[60] However, the different national regulations make different approaches to solve this conflict. Indeed, there is a common basic assumption that the legal position of the employer shall be deemed to be stronger, the closer the connection is between the invention and the performance of work tasks; but the specific approaches and often also the results of such assignment of rights vary.[61]

The national legislations differ as to the extent to which the employer is granted the possibility to claim and seize employees' inventions. Such differences may result from the specific qualification of the inventions (the term 'service invention' may be construed either restrictively or extensively) and from the different approaches of assignment of the rights in the invention to the employer (original entitlement to the invention, derivative acquisition of the rights in the invention, shared right, rights of use etc.).[62]

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[58] STRAUS, *supra* note 1, at 402 *et seq.*; *supra* note 6, at 355 *et seq.*; comprehensive: BARTENBACH/GOETZMANN, *supra* note 53, at 76-79; detailed: GOETZMANN, *supra* note 10, at 115-145; GODENHIELM, *supra* note 3.

[59] GOETZMANN, *supra* note 10, at 123-129; STRAUS, *supra* note 6, at 358-359, 365; BARTENBACH/GOETZMANN, *supra* note 53, at 75.

[60] STRAUS, *supra* note 6, at 354; GODENHIELM, Die internationalen Bestrebungen zur Vereinheitlichung des Rechts der Arbeitnehmererfindungen, 1966 GRUR Int. 125, 126.

[61] STRAUS, *supra* note 6, at 358-360; BARTENBACH/GOETZMANN, *supra* note 53, at 75 *et seq.*; GOETZMANN, *supra* note 10, at 115-129.

[62] BARTENBACH/GOETZMANN, *id.*, at 75 *et seq.* with further references notes 5-9; GOETZMANN, *id.*, at 118-128.

The individual national legislations also vary in regards to remuneration.[63] This is, on the one hand, due to the fact that assignment of the rights in the invention is handled differently and, on the other hand, caused by the fact that certain legislations do not provide for remuneration to be paid to employees for certain service inventions.[64] Moreover, for calculating any remuneration different factors are taken into account.[65]

4.3.3.2 Legal Questions to be Settled and First Answers

The coexistence of two different employment relationships and, accordingly, two regulatory systems to be applied to employees' inventions brings up legal questions that cannot simply be answered by taking recourse to the 'Sphärentheorie'.

Since there are no uniform transboundary European regulations, the initial question is how to handle the coexistence of two different and often conflicting laws on employees' inventions with respect to the same invention:

- If an invention is deemed a service invention with regard to both employers, *e.g.* because one employer has assigned the task (to which the invention provided the solution) and the other employer contributed to such invention by making available internal know how – whose rights to claim ownership will have priority?
- In particular: what will happen to the right of the German company to claim the invention in the case that – under the respective foreign law – such right was already originally acquired by the host company abroad?
- The respective foreign law to be applied (under the 'Sphärentheorie') does not provide for assignment of the right in the invention to the local host employer so that there is no way for the host employer to actually claim and seize the invention. May the German posting company eventually manage to enforce its rights under the ArbEG?
- Will such enforcement be restricted to the rights under Section 4(3), Section 18 and Section 19 ArbEG (because – according to the 'Sphärentheorie' – the foreign regime would actually have priority or *e.g.* because the employee is only actually obliged to perform his tasks towards the host company abroad since the German employment contract was agreed to be suspended)?
- Is the invention deemed released and free with regard to both employers or is – beyond that – the right of the German company to claim the invention excluded because the local regime to be applied under the 'Sphärentheorie' does not at all provide any possibility to claim inventions that are no service inventions?
- May the secondment agreement possibly be construed so as to suggest the assignment of a 'overriding general' research task which would allow for claiming of the invention?

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[63] GOETZMANN, *id.*, at 119-145; BARTENBACH/GOETZMANN, *id.*, at 76-78.

[64] *E.g.* no claim for remuneration for inventions based on tasks specifically assigned to the inventor. Contrary to the German 'Monopolprinzip' the European jurisdictions mostly follow the 'Sonderleistungsprinzip' and provide no remuneration for such inventions (or only under rare circumstances), *see* GOETZMANN, *id.*, at 137-141; STRAUS, *supra* note 6, at 360 *et seq.*

[65] GOETZMANN, *id.*, at 141-145; BARTENBACH/GOETZMANN, *supra* note 53, at 77 *et seq.*

– Is there any obligation between the two employers to share in or, respectively, compensate for the claiming of the invention in respect to the other party, depending on the extent of such acquistion?

European law does not provide an answer to these questions. This remains true even in view of Article 60(1) EPC. Article 60 EPC only deals with the question of who will be entitled to the European patent, excluding any issues going beyond that such as the principal assignment of the rights in the invention and remuneration to be paid for it. In addition, Article 60 is a mere conflict of laws rule for determination of the respective national law to be applied and thus either requires an explicit agreement between the parties to the employment contract or prescribes that reference must be made to certain circumstantial evidence.

To avoid these difficulties, the secondment agreement between the employee and the German employer should in any case be carefully prepared, involving the respective host company abroad, if possible. The purpose of such agreement, which may then be possibly entered into by and between three parties is to ensure legally secure performance of transboundary research and development work.

Such agreement should, in particular, contain stipulations on the following issues:

– Towards which employer shall the employee be obliged to report the invention and under what regulations?
– To which employer and to what specific extent shall the invention be assigned after reporting? And which employer shall be finally entitled to the invention?
– Which employer shall ultimately be liable to pay remuneration for the invention? Is there any intention to ensure consistent remuneration of the inventors within an international research team?

Such an agreement must always observe any existing restrictions of contractual freedom under the respective governing law. For Germany, this is in particular the prohibition of any agreement discriminating against the employee when compared to the provisions of the ArbEG (*cf.* Section 22, 1st sentence ArbEG). Furthermore, the inequity barrier under Section 23 ArbEG must be observed, particularly with respect to remuneration agreements.

It would, for instance, be possible that a German employer waives any right to claim and seize a service invention, either with respect to any and all inventions made by the employee within execution of his tasks abroad for the local host employer, or with respect to any inventions relating to a specific technical area. It would further be admissible to agree on joint and several liability for remuneration claims of the host company abroad (collateral promise). It would, however, not be admissible to depart from one's own obligation to pay remuneration even if the host company abroad undertakes to fulfill such obligation and the employee agrees to such shifting of the obligation; such an agreement would only be legitimate after the reporting of the specific service invention in question (*cf.* Section 22, 2nd sentence ArbEG).

However, agreements between the posting company and the host company abroad are not subject to the provision under Section 22, 1st sentence ArbEG. This rule only refers to the relationship between the parties to the respective employment agreement. Thus, the two companies involved may agree on mutual obligations relating to the claiming or transferring of any bound inventions as well as on mutual granting of licenses or assignment of rights in the invention, by reserving – as the case may be – the right of using the invention for own purposes. It is also possible to internally agree as between the two companies that one of the parties be released from any liability to pay remuneration. The rule of thumb is as follows: If and to the extent that some specific agreement between the employer and the inventor is not admissible, the companies involved must try to fill any loopholes resulting therefrom by agreeing that corresponding regulations apply between the said companies.

However, agreements between the two employers are – like any agreement between the employer and the employee – also subject to certain general restrictions resulting from general legal principles (*e.g.* Article 6 and Articles 30, 34 EGBGB).

5. Conclusion

Although Joseph Straus has pointed out the differences between national rules concerning employees' inventions, and frequently has called for the legislator to address these issues,[66] neither European Law nor the Private International Law provide for satisfactory means to solve the problems that may arise when employee inventors are sent abroad. From a German point of view it is noteworthy that the current situation tends to result in 'exporting the ArbEG', which can cause problems when foreign companies have to apply the ArbEG despite not being familiar with this legal scheme.

Joseph Straus whose jubilee is celebrated herein has recently suggested that the time may have come where the industry should rather rely on careful employment contracts and reasonable collective labor agreements than to hope for the legislation.[67] Given the *status quo* of European Law, this recommendation must be adhered to when posting employees abroad. To avoid results that are not in line with either of the colliding legal systems,[68] the parties involved should come to a reasonable tri-partite agreement under consideration of the aforementioned issues.[69]

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[66] STRAUS, *supra* note 1, at 402 *et seq.*; STRAUS, *supra* note 6, at 353 *et seq.*; STRAUS, Zur Gleichbehandlung aller Diensterfindungen, in: HAESEMANN et. al. (ed.), Festschrift für Kurt Bartenbach zum 65. Geburtstag, 111, 123 *et seq.* (2005).

[67] STRAUS, *id.* at 125.

[68] *Cf.* the examples given by STRAUS, *supra* note 1, at 3; SACK, *supra* note 26, at 1347; GOETZMANN, *supra* note 10, at 60-63.

[69] *See* also BARTENBACH/GOETZMANN, *supra* note 53, at 82 about the implementation of common incentive schemes.

The Finnish 2006 Act on University Inventions – The Road Map to Identifying, Protecting and Utilizing Patentable Research Results

Rainer Oesch

1. Legislative and Regulating History on Employee Inventions and University Inventions in Finland

Researchers and teachers in Finnish universities have traditionally belonged to the group of so-called free inventors, *i.e.*, they have been able to decide whether they utilize their patentable innovations themselves or whether they grant the rights to third parties. The *Finnish Act on Employee Inventions* from 1967[1] contained a provision concerning this, the so-called teacher exemption in Article 1, Paragraph 2.

According to Article 1 in the original version of the Act, a university teacher or researcher was not regarded as an employee in the sense of the Act. Now the situation has changed. The exemption has been abolished, but in a redefining manner. University teachers and researchers are no longer regarded as totally free inventors but rather as inventors with more or less restricted rights to negotiate and agree about the utilization of their inventions, depending on the connection in which the invention has been created.

The position of teachers is regulated by the new specific *Act on Inventions made at Universities* (hereinafter 'Act on University Inventions' or 'Act') of 2006, which came into force on January 1, 2007.[2] It is an act born of the pressure of compromising interests, predominantly reflecting the interests of society as a whole and those of the universities as organizations. In spite of this, inventors have not been completely neglected either. They still have something to say concerning what happens to their inventions and how to patent them. This short article undertakes a brief examination of the goals, content and means of the act, with particular focus on how the act influences the technically creative teacher or researcher at Finnish universities.

The general Finnish Act on Employee Inventions from 1967 is largely based on the discussions normally conducted by the Nordic States (Sweden, Denmark, Norway and Finland). This cooperation was particularly active when the general patent acts were drafted. However, the Nordic Acts on employee inventions still do vary in some respects. The Finnish Act has been reformed on some occasions since 1967, *e.g.*, with regard to the right to use the patent by the employer and the employer's right to remuneration in consolidation companies (international concerns)[3]. The

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1 Law No. 656/1967.
2 Law No. 369/2006.
3 Law No. 1078/2000.

new Act on University Inventions of 2006 is *lex specialis* to the general Act on Employee Inventions. The principles concerning the right of remuneration are meant to be largely the same, but some differences can be found in the details, such as the question of how to calculate a fair amount of remuneration.

When the teacher exemption was removed from the Finnish Act on Employee Inventions, it was replaced by Article 1, Paragraph 2 of the new Act:

> The Act on Inventions made at Universities applies to a person employed by a Finnish institution of higher learning or a person holding a research staff position from the Academy of Finland, and to a person doing research in a Finnish institution of higher learning).

2. The Purpose of the Act on University Inventions

The general goal of the Act according to the government proposal is to promote identification, protection and utilization of inventions in an appropriate manner from the point of view of various interest groups.[4] A specific goal of the Act is to strengthen the position of the universities in the commercialization of inventions made in the course of research activities. The purposes of the Act are practical by nature. The reasons for drafting the new act are the growing importance of the inventions and the problems that arose within the administration and management of inventions at the universities.[5]

In the preparatory legislative work, no specific or general opinion was raised concerning the transfer of the technology from the universities to industry, nor was attention given to the globalization of markets, although somewhat idealistic comments about Finland's competitiveness and the continuation of cooperation between industry and the universities were made. The declared aim of the Act was to solve the problems of how to transfer the rights for inventions and to have means to utilize inventions effectively within research and teaching both inside and outside universities. A degree of clarity and equality of treatment was presupposed for the provisions concerning the transfer of the rights to the inventions.[6]

3. The Debate About the Draft for the Act on University Inventions

The debate about how to regulate university inventions in the best and most balanced way was first initiated by experts. The debate also continued in the parliamentary committees while drafting the Act. The arguments culminated in the Constitutional Law Committee of the Finnish Parliament, which has an authoritative role. This is an idiosyncratically Finnish feature of the legislative system, because Finland has no constitutional court with powers to give an opinion about the constitutionality of an Act after it has entered into force, as is available in many other

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4 Government Proposal No. 259/2004 p. 13.
5 Government Proposal No. 259/2004 p. 4.
6 Governmetn Proposal No. 259 pp. 4-5 and 13.

countries, including Germany. The functions of the Finnish committee are restricted to oversight of constitutional rights in the drafts of bills. [7]

However, in this case, the opinion of the Constitutional law Committee was requested during the drafting procedures in the parliament, which is significant in itself as regards the realization of constitutional rights. The question was about how the economic interests of university inventors had been taken into account and how the draft treated the rights to publish the research or make the results public. The arguments about the basic rights of inventors thus culminated here, although this did not happen as dramatically as when amendments to the Copyright Act were debated some time before.[8]

There is a long tradition of pre-control (advance control) of constitutional rights in the Finnish parliamentary system. Sometimes the interpretation of constitutional rights becomes relevant in general courts nowadays as well, but this is still quite rare. However, the parties to a case can rely on their constitutional rights and courts should take these remarks into consideration in their decisions.

Fortunately, during the drafting of the Act on University Inventions, some controversial arguments were put forward. This resulted in a more balanced Act and the discussions and debates made the Act a somewhat more interesting piece of legislation for the general public as well. The first drafts, *e.g.*, the one proposed in 1998 by a committee established by the Ministry of Education and Culture, were very institutionally oriented and university-centered at the expense of the university inventors.[9] There were, and still are, perhaps too many bureaucratic elements in the procedures applying to university inventions – but the draft really matured during the legislative procedure. It is, however, a little premature to say whether the resultant legislation is balanced enough or not.

The first draft by the committee set up by the Ministry of Education and Culture in 1998 categorized researchers as normal employee inventors under the general Act on Employee Inventions.[10] The consequence of this proposal would have meant that university researchers were put directly in the position of being employed rather than free inventors. This provoked criticism and controversy. First, the criticism pushed the proposal towards a more detailed plan concerning innovative research at the university. In the later phase of the drafting, the research was divided into three categories: open, commissioned and other research. This division is also reflected in the new Act on University Inventions. The rights of the researcher are broadest in scope in open research and 'weakest' in commissioned research.

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[7] According to Article 74 of the Finnish Constitution (Supervision of constitutionality), the Constitutional Law Committee shall issue statements on the constitutionality of legislative proposals and other matters brought before it for consideration, as well as on their relation to international human rights treaties.

[8] See discussion about the copyright draft on digital technology in 2005; as in Oesch, R. Tekijänoikeudet ja perusoikeusnäkökulma (Copyright and Constitutional Rights), 2005 Lakimies (LM) 351 *et seq.*

[9] Report on the Researchers' Intellectual Property Rigths. Ministry of Education Reports 9:1998.

[10] Draft No. 1998:9, by the Working Group on Researchers'Intellectual Property Rights, Ministry of Education Publication.

In addition, there was a tendency in the legislative process to regulate the position of inventors through the administrative and structural provisions of universities. However, it was fortunately realized quite early that this is not possible simply by changing the functions and sphere of operation of universities in the law. The goal of this initiative was also clearly to extend the rights of the employers, *i.e.*, of the universities. It was then realized that changes in the system were possible only through introducing new norms and making essential changes in the law of employee inventions, not simply by changing the law applying to the functions of universities. The Finnish university legislation was reformed in 2004[11]. A societal service function of universities, including the obligation to cooperate with industry, was added in the new law on universities and their administrative structure and functions.

4. Questions Considered by the Constitutional Law Committee

The Constitutional Law Committee of the Finnish Parliament received the draft for consideration because of its possible implications for constitutional rights and gave its opinion in 2005.[12] The Committee considered the matter purely as a question of the order of enactment. The constitutional rights mainly concerned the protection of property in general and the freedom of expression of researchers.

The procedure for constitutional enactment is more difficult than for ordinary acts, which require simple majority only. Article 73 of the Finnish Constitution[13] states that a proposal on the enactment, amendment or repeal of the Constitution or on the enactment of a limited derogation of the Constitution shall be left in abeyance in the second reading, by a majority of the votes cast, until the first parliamentary session following parliamentary elections. The proposal shall then, once the Committee has issued its report, be adopted without material alterations in one reading in a plenary session by a decision supported by at least two-thirds of the votes cast. However, the proposal may be declared urgent by a decision that has been supported by at least five-sixths of the votes cast. In this event, the proposal is not left in abeyance and can be adopted by a decision supported by at least two-thirds of the votes cast.

The result of the Constitutional Committee's deliberations was that there was no obstacle to drafting the act in normal order, that is, the committee did not find any unnecessary interference with the proprietary or any other rights of inventors in the draft.

5. Statement of Reason of the Constitutional Committee

The Constitutional Committee saw the position of the researchers as quite free. Otherwise the language of the opinion is formalistic, a kind of 'formalistic paper

[11] Law No. 715/2004.
[12] Opinion No. 25/2005.
[13] Law No. 731/1999.

language' focusing on the order of enactment, clarity and content of the draft. The Committee stated that:

> From the researcher's point of view it is a question about a selection of research forms. A researcher is able to do his research in open research as set out by the draft. In that case he is able to keep his rights in the invention made by him during the research. On the other hand, a researcher is able to carry out commissioned research financed by an outsider or any other contract-based research. The result derived from this kind of situations the right to an invention can be taken by the university according to Article 7 of the draft.[14]

You may ask whether a researcher is really *de facto* free to 'do what he wants'. However, the Constitutional Law Committee accepted this somewhat idealistic point of view.

Contractually based research was found to be appropriate as a definition. The opinion of the Committee based on following ideas:

> Contractual research according to the Article 3, Section 3 of the draft also means other kinds of research in which at least one outsider party is a co-researcher, financer or other kind of actor who has obligations concerning the utilization of the results. On the other hand the wording of Article 3, Section 2 b of the draft does not answer the question of whether the obligation to publish the research results is enough to make the research to belong to the category of contractual research.

The difficulties caused by the division into three categories were identified by the committee but, no obstacle to use this categorization was seen. The breadth of the regulation concerning the nature of obligations to use the research results by a third party (financer, research partner or other kind of participator) was relieved according to the committee by the fact that a university and its partner can always agree on the nature of the research work to be called open research (Article 3, Section 2 c).[15]

The rights of the university are linked to the research done in contractual commitment situations according to the committee. In actual situations, the university has the burden of proof concerning the nature of the research, since it has to prove that the result has been obtained within contractual research, or that it is obvious that the invention was developed or created during the course of contractual research. This is important to note from the researcher's rights point of view, because a researcher carrying out contractual committed research can take part in other research at the same time; *e.g.*, open research projects as well as other research. The committee stated that there should be a connection between the contractual project and the research outcome as a patentable invention.

The proposed regulation in the draft that the inventor's rights can be automatically transferred to the organization was not seen as unproportional interference in the constitutional rights of a researcher (*e.g.*, property rights) by the committee. It was also clear according to the committee that it was not to be regarded as an uncon-

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[14] Report of the Constitutional Law Committee 28/2005 at 2.
[15] *Id.*

ditional transfer or expropriation or similar compulsion in the sense of Article 15 of the Finnish Constitution.

The draft was regarded as containing adequate provisions on researchers' rights to fair and reasonable remuneration for a patentable invention. From the legal protection point of view, the essential features were the provisions on announcement of the invention and those on division of burden of proof. The potential dispute over how to divide the rights between different parties may be settled by the court. The provisions on transfer of rights did not contradict this according to the committee.

6. The Right to Publicize the Results and the Researcher's Freedom of Speech

An inventor may not, unless not otherwise agreed, publish the research in a way that would endanger the utilization of the invention according to the new law if a university is entitled to the rights to the said invention. During the draft procedure, this was held to be interference in the freedom of speech provided in Article 12 of the Finnish Constitution. Freedom of speech includes the right to publish information, opinions and other messages without any prior censorship. The intellectual freedom provided for in Article 16 of the Finnish Constitution also includes the right to disseminate results, a right that lies very close to the right of freedom of speech.

In any case, the restriction of the right to make public was regarded as justified in order to protect the right to obtain a patent, because a patent can be granted to an invention which was never made public before according to Article 2 of the Finnish Patent Act.[16] The prohibition to publish was also considered justified from the position of the customer or another outsider of the university. The prohibition on making public is not general by its nature but specifically defined to mean endangering the claim to and utilization of a patent to an invention.

The prohibition is not absolute, and the parties can agree otherwise about prohibition of relevant facts about the invention. The draft was thus not regarded as in contravention of constitutional rights.

After the constitutional problems were overcome, the draft was accepted. The new Act contains several crucial principles that represent a compromise between the various interest groups.

7. Categorization of Inventions into Three Groups

The division of research activities into three different groups is somewhat artificial, but, since the rights of both the universities and researchers are dependent on this division, the interest groups must accept this solution.

In contractual research, the university is meant to administer the rights to an invention in relation to cooperators from outside, especially in research projects based on external funding and financing. In this situation, the university is always entitled to the rights to the invention. In open research it is the reverse: the

[16] Law Nr. 550/1967.

researcher is primarily entitled to the rights, being able to keep the rights that were originally vested in him. Open research in the sense of the Act means traditional academic research without specific project funding. An invention which is not made as a result of open or contractual research, but in connection with university functions such as an invention developed by a technician in a laboratory or by administrative personnel probably comes within the scope of the third category of the Act. Also in this third category, it is primarily the inventor who has the right to decide about professional use of the invention.

An invention made within university functions must always be notified to the university; such notification has to be submitted in writing and without undue delay. The inventor must also give his opinion on whether the invention has been created in open, contractual or other research, as well as informing the university about other pertinent facts concerning the invention. On the other hand, the university must notify the inventor about what measures may be taken under the Act. This (counter-) notification must also be made as soon as possible, at the latest within two months from receiving the original information from the inventor. In its notification, the university must also give an opinion on whether it agrees with the inventor about the nature of the research in which the invention was created.

Generally, the provisions concerning the notifications are quite formalistic and the imposed time limits a little too short, especially from the universities' point of view. It is generally presumed that the notification provisions are intended to contribute to the exploitation of inventions, and the obligations to inform imposed on the inventor also seen as necessary to enable the universities to administer the rights of inventions which they are able to obtain more easily under the new Act.[17]

8. Remuneration Problems

The factors for determining the remuneration are considered to be quite similar to cases of 'ordinary' employee inventions (the value of an invention, the scope of the employer's right, the conditions of the labour contract, and other matters concerning the labour contract). However, this is only partly true. The initial assumption is that an inventor is entitled to fair and reasonable remuneration. The general principles of contract law, such as the Nordic type of adjustment clause, also apply, and the remuneration is decided on a case-by-case basis. According to Article 9, Section 2, the remuneration seems to be dependent on whether the invention has been successfully brought to the market in the sense that it has been commercialized. Article 9, Section 2 defines reasonable remuneration as follows:

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[17] The inventor's notification should be followed by the university's counter-notification. In this the university must firstly state what measures it will take according to the law – secondly, the university still has four months to declare whether it will take up the rights and what kind of rights. The right to remuneration persists for ten years from the initial notification of the university that it will take the rights according to the law. (Article 10, section 3). *See* HAARMANN/MANSALA, Immateriaalioikeuden perusteet (Introduction to Intellectual Property) 133 (2007).

> When calculating the amount of remuneration, the conditions influencing the creation of the invention and the income gained by the university as a result of the invention, must be taken into account.

If the university has been sufficiently successful in commercializing the invention, the remuneration is probably higher than where this has not happened. However, the provision in Article 9 could also be seen as some kind of restriction and, realistically, many university inventions are far from the commercialization phase, especially if it has been made in an area of basic research. Under the general Act on Employee Inventions, there are three calculation methods: calculated profits, comparison with licensing contracts (the license analogy) and pure evaluation (the evaluation method). These principles are probably followed here as well to a great extent, and the *travaux preparatoires* include expressions that imply the possibility of an inventor getting remunaration retrospectively if the invention succeeds. But this can raise several problems, especially for the inventor, *e.g.*, that the burden of proof remains with the claimant.

In practice, the general Board of Inventions can make a statement in cases concerning the remuneration of university inventions as well. A special section for university inventions is established. So far, *i.e.*, by early 2008, no opinions regarding such statements have been given.

The inventor's right to fair and reasonable remuneration falls under the normal statute of limitation: claims have to be filed within ten years from the initiation of an action from the side of the university (see above).[18] In calculating the amount of remuneration, special attention should also be given to the income derived from the invention, *i.e.*, the net income. Although the intention was to follow the same principles for the amount and calculation of remuneration as in cases of general employee inventions, both the formulation in Article 9 of the new Act and some expressions in the *travaux preparatoires* indicate the reverse. In these it is stated that:

> The aim was not to follow the principle of full compensation. This can be somewhat confusing.[19]

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[18] HAARMANN/MANSALA, Immateriaalioikeuden perusteet (Elementary Intellectual Property) (in Finnish) 133 (2007), BRUUN/VÄLIMÄKI, Korkeakoulukeksinnöt (University Inventions) (in Finnish) 84, 90 (2007).

[19] *See* Government Proposal 259/2004 at 16, in which it is argued that the same principles as in the general Act on Employee Inventions are followed. In any case, the remuneration is primarily thought to be determined by the surplus value which the research have been able to bring to the university in addition to normal research work connected to the labour contract. Here the principle of full compensation is denied.

9. Evaluation

The New Finnish Act on University Inventions includes examples and models from abroad, including the USA and Japan.[20] One common feature seems to be rationalization of transfer of technology from the universities to industry or as pointed out by *Robert Kneller* in his work '*Bridging Islands*' in cases of venture companies.[21] However, the conditions of research and commercialization may differ to a great extent in a small country where the market is marginal compared to a big country, where the market is central. The trend in patent growth in global markets, as pointed out by *Joseph Straus*, will also be shared between newcomers such as China, India and Russia.[22] Solutions in a small country's national legislation may thus have very limited value as a model, although the efforts of the European Union authorities can sometimes create an international trend.

Some final remarks on the solutions in the Finnish Act on University Inventions:

The new act is better than nothing, but it has arisen under the pressure of various interest groups and represents a compromise. Furthermore, compromises can in some details be quite illogical and satisfying to one party but not to another. But we must live with them – even when interpreting the norms. As for exploitation of university inventions from a judicial point of view, the crucial questions concern the ways and means of dividing and enforcing inventors' rights in these cases and who has been accepted as a player in the commercialization procedures. The universities now have a position which they did not have before. Whether they are able and willing to do their best depends very much on how much information about the application of the new provisions is disseminated. A critical economic fact in a small country where the relevant markets are not next door is that the commercialization requires a global approach. Other questions are how to achieve world-wide patent protection for an invention from a university of a small country, at what cost, and by whom.

At any rate, the discussion during the drafting of the new act shows that the intention was to prevent the non-use of inventions and to enhance the exploitation of inventions by the parties involved. This goal was admirable and somewhat idealistic. Protection was seen as an essential element in this procedure. This is not in dispute, but during the drafting procedure and later it became clear that there will probably be many (problematic) details of the Act which will become apparent only later through experience of its applicaton. The Finnish parliament thus passed the bill and approved a separate additional statement (a quite rare procedure), which

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[20] As for the USA, *see* KANKAALA/LAMPOLA, The Commerzialization of Research in the USA (in Finnish) (Helsinki 1998) and OESCH, Transfer of Technology – Japan's example vs. Finland (In Finnish) 2005 Defensor Legis 331–340; and RIIHELÄ, Technology Transfer from Universities to Industry in Japan: Kanazawa University as an Example, Finnish Ministry of Trade and Industry Publications (2005).

[21] KNELLER, Bridging Islands: Venture Companies and the Future of Japanese and American Industry (New York 2007).

[22] STRAUS, Is There a Global Warming of Patents? 11 The Journal of World Intellectual Property 58–62 (2008), especially at 60.

declared that a follow-up report must be prepared within three years of the the enactment of the bill. In this report, the functionality of the Act should play a central role, especially how universities perform their tasks once they obtain the rights according to the Act in so-called contractual research, where the rights of universities are the broadest and strongest. If necessary, the provisions on terms for formalities should be reworded.

In applying the new Act, the tripartite relationship inventor – university – client (implementer – *e.g.*, industry) is of special importance. In the future, we will probably observe whether universities see themselves as competitors with industry and whether individual researchers may react to prohibitions on their possible right to publish after the invention has been found to be a university invention. Over the years, the Finnish universities have shown their interest in building up their written standing orders or rule books that contain the internal rules on how to treat innovative, creative research. One good aspect of the new act is that the universities have been pushed to become more active in their innovation policy and to take a more active role than before in production and commercialization. The effects *in toto* will first be seen later, and also how the industry reacts. Will it still be willing to finance research and development in Finland, and not only in the 'cheaper' developing countries with growing resources? Are the researchers ready and willing to reveal their innovations, and how do they fulfil their traditional work, *i.e.*, publishing the results of their work? In any case, there are still researchers who want to have a career as independent academic entrepreneurs as well.

The legal gap that existed before has now been filled to a great extent, which is one of the positive sides of the legislation. The parties involved, however, must always be very alert and able to identify patentable innovations quite quickly, not only because of the relatively strict time limits stipulated by the law. Diverging opinions, even disputes concerning remuneration (the level and calculation method) would deserve an article of its own, but it is easy to see that disputes lie ahead, because of some controversial and ambiguous texts both in the law and at the preparatory level. Very much also depends on practical contracting between the parties. So far there is no significant practice or case law, neither from the Board of Employee Inventions, nor from the courts.

University Employee Inventions in Scandinavian and Finnish Law

Are Stenvik

1. Introduction

When inventions are conceived by employees – and most inventions are –, the same question always arises: Is it the employee or the employer who owns the right to the invention and is thus entitled to apply for a patent? In spite of the significant social and economical impacts that may follow from the answer to this question, it has been modestly debated during the past decades. In the Nordic countries, legislation has hardly changed over the last 50 years or so.

In one particular sector, however, lively discussions and important developments have taken place more recently, namely in the academic sector. In the Nordic countries, like in Germany, inventions made by teachers and researchers at universities and colleges have traditionally been treated as the personal belongings of the inventors. Following recent legislative reforms the rights to such inventions are, however, to a certain extent transferred to the employer, *i.e.* to the college or the university. There are at least two important reasons for this development: Firstly, there has been a growing recognition that the principle of academic freedom is not a convincing argument for granting privileges to university and college employees in this area. Such privileges do not secure freedom of research, only freedom of commercial exploitation. Secondly, the perception of the role of universities and colleges in the innovation process has changed in recent years. Whereas these institutions were earlier looked upon mainly as producers of pure knowledge, knowledge that should be disseminated as freely and broadly as possible, they are nowadays regarded as important contributors to the general innovation process in society, often in co-operation with industry. Moreover, research activity at universities and colleges traditionally was funded predominantly by general state grants, today it is to a larger extent funded by earmarked grants from national and European research councils and by contributions from industry. Many think that universities and colleges must be entitled to claim ownership to employees' inventions, at least to a certain extent, shall they be able to play the role envisaged by society in the process of industrial innovation.

A catalyst for this development was, perhaps, the so-called Bayh-Dole Act that was adopted in the USA in 1980, and the commercial success that followed at some American universities.[1] This sparked a debate in some European countries, and led

[1] *See* MOWERY ET AL., Ivory Tower and Industrial Innovation – University-Industry Technology Transfer Before and After the Bayh-Dole Act in the United States (2004).

to reforms in Denmark in 1999 and in Germany,[2] Norway and Finland in 2002, 2003 and 2006 respectively.[3] Sweden has not yet followed suit, but the issue is presently debated, and a proposal for new legislation was presented in 2005.[4]

The purpose of this article is to present, compare and discuss the legal developments and present legal situation in the Scandinavian countries and in Finland. The following presentation will show that there are important differences between the Nordic countries, since legislation in this area is not based on joint legislative preparations, as has been customary in the field of intellectual property law and in other areas of private law.

2. Nordic Legislation Regarding Employee Inventions

Legislation regarding employee inventions was adopted first in Sweden in 1949, with Denmark following in 1955, Finland in 1967 and Norway in 1970.[5] The provisions apply only to *patentable inventions*, but they apply regardless of whether inventions are actually patented and they apply even if patent protection is not applied for. No legislative provisions exist concerning unpatentable know how, copyrights, designs or the like, except for computer programs, where entitlement as a consequence of the directive 91/250 on the legal protection of computer programs is transferred to the employer, unless otherwise provided by contract. The legal situation is thus heterogeneous, and if a research project results in products or processes that are subject to two or more kinds of intellectual property protection, the legal situation is often unclear. Still, no initiative has been taken in order to create more homogenous legislation covering the whole area of employees' intellectual creations.

The Nordic acts regarding employee inventions declare as their common point of departure that *employees shall have the same rights to their inventions as other inventors*. Thus, the general rule is that inventions belong to the inventors, not to their employers. This rule is, however, substantially modified by exceptions secur-

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[2] *See*, for instance, BARTENBACH/VOLZ, Erfindungen an Hochschulen – Zur Neufassung des § 42 ArbEG, 2002 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 743–758; LEISTNER, Farewell to the 'Professor's Privilege' – Ownership of Patents for Academic Inventions in Germany Under the Reformed Employees' Inventions Act 2002, 35 IIC 859–872 (2004); WEYAND/HAASE, Der Innovationstransfer an Hochschulen nach Novellierung des Hochschulerfindungsrechts – eine Zwischenbilanz in rechtspolitisher Absicht, 2007 GRUR 28–39.

[3] It is interesting to note that Italy has gone in the opposite direction, and introduced a teacher's exemption in 2001, *see* UBERTAZZI, Arbeitnehmererfindungen von Forschern an Universitäten in Italien, 2003 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 986–991.

[4] SOU 2005: 95 Nyttiggörande av högskoleuppfinningar (Exploitation of university and college inventions).

[5] In Sweden the Act regarding the right to employee inventions (June 18, 1949 no. 345), in Denmark the Act regarding employee inventions (April 29, 1955 no. 142), in Finland the Act regarding the right to employee inventions (December 29, 1967 no. 656) and in Norway the Act regarding the right to inventions made by employees (April 17, 1970 no. 21).

ing for *employers* a right to obtain ownership or license to inventions conceived by employees, or in some cases a right of first refusal.

When it comes to the preconditions for the employer's right, and the extent to which the employer is entitled to claim ownership or license to the invention, there are some differences between the countries. The Norwegian and Swedish acts are, however, quite similar. The minimum requirement for the employer being entitled to the invention is that the exploitation of it comes within the employer's sphere of activity. If this minimum requirement is fulfilled, the extent of the employer's rights depends on the employee's position and on the proximity of connection between the invention and the employee's duties. If the employee is principally engaged with research or development work, and if the invention emerges in the course of such duties or results from a specified task assigned to the employee as part of his employment, the employer is entitled to claim ownership of the invention. If the connection between the invention and the employment relationship is of another kind, the employer shall be entitled to exploit the invention in his business, *i.e.* entitled to a non-exclusive license. Finally, if an invention emerges in circumstances unconnected to the employment ('private invention'), the employer shall enjoy having priority in making an agreement with the employee for the full or partial transfer of the rights to the invention.

According to the Danish and Finnish acts, on the other hand, the employer's right to claim ownership is not dependent on the employee being engaged principally in research or development work. It suffices that the invention emerges in the course of the employment, and that the exploitation of it comes within the employer's sphere of activity. Moreover, the employer is entitled to claim ownership if the invention is the result of a specified task assigned to the employee, even if the exploitation of it does not come within the employer's sphere of activity.

In all the four countries, an employee who makes an invention to which the employer is entitled shall notify the employer without undue delay, and if the employer wishes to acquire rights to the invention, the employee must be notified within a specified time limit. If the employer acquires rights to an employee invention, the employee is entitled to reasonable remuneration, provided the value of the right acquired by the employer exceeds what the employee may reasonably be expected to perform in return for his or her wages and other benefits.

Parties of employment contracts are normally free to deviate from the enacted provisions by individual or collective agreements. Some provisions, however, are mandatory, most notably the right for the employee to receive reasonable remuneration.

3. University Inventions

3.1 Background

University and college inventions were previously exempted from the ordinary regimes of employee inventions in all the Nordic countries. The Norwegian act, for instance, stated in Section 1:

> For the purposes of this Act teachers and scientific staff at universities and colleges shall not, in that capacity, be deemed to be employees.

The consequence of this so-called 'teacher's exemption' was that university inventions were patented only unsystematically, if at all, and that commercialization took place on an individual basis, often by researchers alone or in co-operation with industry.

In recent years, however, university and college inventions have received increased attention from governments in the Nordic countries, like in most other countries. There are several reasons for this development. First of all it is important to recognize that a rather significant part of the total R&D spending is channeled through government funded research organizations in the Scandinavian countries, approximately in the area of 25 to 30 percent.[6] The major part of this spending may be expected to result in non-patentable results that are not immediately applicable in industry, but studies indicate that a significant share of patentable inventions emerges as well. About 10 percent of all patent applications in Norway involve at least one researcher from a Norwegian research institution, and a half of the scientific publications from industry are co-authored with researchers from the higher education sector.[7] Universities and colleges are therefore important actors in the national innovation systems. Exploiting university and college research more effectively is regarded an important task in view of the aim of securing economic growth and achieving increased welfare.

Furthermore, the system for funding university and college research has changed. Earlier, nearly all university and college research was funded by governments as a 'public good'. Nowadays, it is regarded as a general objective to reduce the public share of R&D activities in the higher education sector, which has traditionally been in the order of 50 to 70 percent.[8] Research is increasingly contract-based and oriented towards particular research objectives. Inter-disciplinary and applied research, and in particular joint projects with industry are prioritized. The so-called centers for research-based innovation are perhaps the most prominent examples. The purpose of these is to build up and strengthen research groups that work in close collaboration with partners from innovative industries and innovative public enterprises. All these factors contribute to increased attention on the concrete and commercial results of university and college research, and funding are more often than before dependent on legal protection of research results.

A result of this development is, furthermore, a modified view of the basic missions of universities and colleges. In addition to the two traditional pillars, research and education, a third pillar has emerged: interaction with society and in particular

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6 OECD, University Research in Transition (1999), 86, available at <www.oecd.org/dataoecd/9/13/2754370.pdf > (as of February 2008).

7 KALOUDIS/RØRSTAD, Analysis of public R&D funding in Norway, NIFU-STEP Working Paper 51/2006; IVERSEN ET.AL., A baseline for the impact of academic patenting legislation in Norway, 70 Scientometrics 393 (2007), discuss the difficulties of empirically assessing the impact of policy changes in the area of academic patenting.

8 KALOUDIS/RØRSTAD, *id.*

with industry. According to the Norwegian University and College Act 2005,[9] Section 1-1, one of the main objectives is to 'disseminate knowledge of the institution's activities and promote the … application of scientific and artistic methods and results … in public administration, cultural life and business and industry'. According to Section 1-3 this purpose shall be promoted by, for instance, 'contributing to innovation and value creation on the basis of the results of research'.

Placing this responsibility on universities and colleges is intended to lead to more systematic dissemination and increased exploitation of research results. The new responsibility presupposes that institutions are provided with sufficient funding and competence to be able to fulfill the obligation. Furthermore, reconsideration of the teacher's exemption was called for. Some meant that it was necessary for the institutions to secure a right to acquire and protect inventions that have emerged as a result of the research activities. The issue was, however, highly controversial. In Norway, for instance, the expert committee that was appointed to prepare legislation was unable to reach a common understanding.[10] Only a minority recommended that ownership should be transferred to the institutions, whereas the majority wanted the rights to remain with the employees. In Finland new legislation was proposed in 1998, but not adopted until 2006. And, as noted above, Sweden has so far chosen to maintain the teacher's exemption, in spite of several propositions being made to the contrary, most recently in 2005.[11]

The skeptics' main concern has been that the principle of academic freedom may be threatened, together with the fear that long-term basic research will suffer when increased emphasis is put on applied research and commercialization. In the classical universities, knowledge was sought for its own sake, without consideration for its practical applications and economical consequences. The principle of academic freedom, and in particular the freedom of research – implying freedom to choose freely the object of research as well as research methods – was regarded essential. This principle is still considered to be relevant and important, and it is secured by law in all the Nordic countries. The Norwegian act prescribes for instance in Section 1-5 that: 'Universities and colleges shall promote and protect academic freedom', and that 'persons employed in positions encompassing research or academic or artistic development work, is entitled to choose object and methods for his or her research or development work within the constraints following from the employment or from a particular agreement'.

In Finland, the principle of freedom of research is also protected by the constitution. Article 16(3) states:

> The freedom of science, the arts and higher education is guaranteed.

This provision resembles Article 13 in the European Charter of Fundamental Rights:

> The arts and scientific research shall be free of constraint. Academic freedom shall be respected.

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[9] Act regarding universities and colleges April 1, 2005 no. 15.

[10] *See* committee report NOU 2001: 11 Fra innsikt til industri (From knowledge to industry).

[11] *Supra* note 4.

The principle of academic freedom does not, however, prevent the allocation of public or private funding to specific research projects with defined research objectives. Neither does it guarantee that researchers shall have the right to commercial exploitation of their research results. This is presently widely accepted. More controversial is the question whether researchers shall be entitled to publish, or not to publish, research results. As we shall see below, this issue has been handled differently in the Nordic countries.

3.2 Current Legal Situation

According to the new legislation in Denmark, Finland and Norway, the main rule is now that universities and colleges may claim ownership to inventions made by their employees during the course of their employment. It is important to note that the main objective behind this reform is not that the institutions shall benefit financially from commercial activities, or that a larger share of the research shall be funded by license fees or other incomes stemming from protected inventions. It is acknowledged by governments, as well as by institutions, that patent licensing activities and research spin-offs rarely provide substantial income.[12] A 2002 OECD survey concluded that public research organizations negotiate a very small number of licenses per year. Licensing income, even at the best performing institutions, rarely represents more than 10 percent of research budgets and most licenses are for non-patented intellectual property, such as biological research material or copyrighted works.[13] A Danish evaluation panel reports that revenues from commercialization are quite modest, and that only a few institutions expect to recover patenting and commercialization costs, even in the long run.[14] The situation in Norway is the same.[15] The main purpose is thus not financial, but to enable the institutions to fulfill their responsibilities in connection with innovation and value creation in society. It is widely recognized that patents increase economic activity and welfare and it is generally believed that governments should contribute to the creation of well-functioning markets for technological transfer, with the aim of ensuring more extensive exploitation of patented inventions. Recent research indicates that only 60 to 80 percent of patents granted are actually used, and that sleeping patents make up a significant reservoir of knowledge that can be exploited more effectively.[16] It is believed that institutions

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[12] *See* STANKIEWICZ, Academics and Entrepreneurs – Developing University-Industry Relations, 78–79 (1986).

[13] OECD, Turning Science into Business: Patenting and Licensing at Public Research Organisations, 16, 68 (2003).

[14] *See* the evaluation report Evaluering af forskerpatentloven (Evaluation of the Danish Act of Inventions at Public Research Institutions, with summary in English), May 2004.

[15] GULBRANDSEN ET.AL., Universitetenes og forskningsinstituttenes rolle i kommersialisering (Universities and research institutes' role in commercialization), NIFU-STEP Working Paper 40/2006.

[16] *See* the research report Study on evaluating the knowledge economy – what are patents actually worth: The value of patents for today's economy and society, Final report July 23, 2006, available at <http://ec.europa.eu/internal_market/indprop/docs/patent/studies/final_report_lot2_en.pdf> (as of February 2008).

are better equipped for the task of protecting and exploiting inventions than the individual researchers or research groups. And, perhaps more important, securing for institutions or their research partners rights to inventions that emerge during the course of research projects, will contribute to increased joint activities from research institutions and industry.

In Sweden, on the other hand, teachers at universities and colleges are still exempted from the act on employee inventions. The consequence is that inventions made by such personnel at Swedish institutions are subject to the general rule in Section 1 of the Patent Act 1967, stating that:

> Any person who has made an invention which is susceptible of industrial application, … shall, in accordance with this Act, have the right on application to be granted a patent for the invention and thereby obtain the exclusive right to exploit the invention commercially.

Swedish research institutions may therefore not claim ownership to employee inventions, or even a license, unless otherwise provided in the employment contracts or by a particular agreement.

The countries that have adopted new legislations have chosen different regulatory regimes. Whereas Norway has made university inventions subject to the ordinary provisions concerning employee inventions in the 1970 Act (with some exceptions), Denmark and Finland have adopted separate acts particularly concerning inventions made by employees at public research organizations.[17]

In all three countries, the rules apply only to patentable inventions.[18] Know how and other unpatentable research results are not covered.

The categories of employees comprised by the rules vary somewhat from country to country. Teachers and scientific staff at universities and colleges are comprised by all acts. Additionally, the Danish and Finnish acts cover certain categories of employees, such as technical and administrative personnel. Furthermore, they comprise employees at some other types of institutions, for instance government research institutes and public hospitals (Denmark) and military colleges (Finland). Students are not subject to the regulations unless they are employed, for instance as research assistants.

An employee who is subject to the rules shall notify the institution without undue delay if he or she makes an invention. The notification shall contain a description specifying the nature of the invention. The institution must decide whether it wishes to acquire rights to the invention and notify the employee of its decision within a specified time limit, in Denmark within two months, in Norway within four months and in Finland within six months.

The institutions' right to acquire ownership is most extensive in Denmark, where ownership may be claimed provided only that the invention has been made *in*

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[17] In Denmark, Act regarding inventions at public research institutions (June 9, 1999 no. 347), in Finland, Act regarding right to inventions at colleges (May 19, 2006 no. 369).

[18] In Denmark, the act applies to utility models as well. Protection for utility models exists in Denmark and Finland, but not in Norway or Sweden.

the course of the employee's duties (Section 8). This applies regardless of whether the research project has been initiated by the employee or by the institution, and whether or not the institution has invested resources in the research project leading to the invention.

The Finnish act, on the other hand, differentiates between open research and contract research. *Open research* is, according to Secion 3(2), (a) research that is conducted without external funding and without the participation of external research partners, (b) externally funded research, provided that only publishing of research results is contractually regulated, and (c) projects where it is explicitly agreed that the research shall be open. *Contract research* is, on the other hand, according to Section 3(3), (a) research that is subject to public services tax,[19] and (b) research where at least one external party takes part in the research project, provides funding for the research project or participates in other ways, and where obligations exist with respect to the use of research results or the way in which research is conducted. A third category of inventions is supposedly rather narrow: Inventions comprised by the act that is neither open research nor contract research, *cf.* Section 3(4).

Institutions are entitled to claim ownership to all inventions that emerge from *contract research* (Section 7). For inventions made during the execution of *open research,* the right is according to Section 6 more limited: Institutions cannot claim ownership if the inventor publishes the invention within six months, or if he, within the same time limit, notifies the institution of his intention to exploit the invention commercially. For other inventions – the third category – institution enjoys priority in negotiating with the inventor concerning the right to the invention. Moreover, institutions are given a non-exclusive right to use inventions to the extent that such use is necessary for the execution of the institutions' activities (Sec. 8).

In Norway, university inventions are subject to the general rules described under 2 above. Since the persons concerned are normally employed as researchers, institutions will often have a right to acquire ownership according to Section 4(1), provided the invention has emerged in the course of the employee's duties and that the exploitation of it comes within the sphere of the institution's activities. The researcher's *right to publish* the invention represents, however, an important exception, see further below.

In all three countries, inventors are entitled to reasonable remuneration if their inventions are acquired by their employers (Danish university employee inventions act Section 12, Finnish university employee inventions act Section 7, Norwegian employee inventions act Section 7). This provision is mandatory in Finland and Norway. The Danish act has chosen a different solution in that it prescribes that all institutions shall adopt rules for calculation of employee remuneration, which must be approved by the Ministry of Research.

In principle, reasonable remuneration must be calculated on an individual basis, taking into account the value of the invention, the extent of the right acquired, the parties' contributions to the invention and other relevant circumstances. In practice,

[19] Certain types of services from public institutions in Finland are subject to tax according to Act of February 21, 1992 no. 150.

however, earnings are split between the inventor, his or her department and the institution (or its Technology Transfer Office – TTO), according to a standard formula embedded in employment contracts or in the institutions' IP policies. Compensation is generally well above what employees in industry can expect. The normal practice in this sector is that the inventor gets 1/3 and the institution gets 2/3 of the net income. The reasons for this generous approach are partly tradition, and partly the general belief that generous compensation gives inventors effective incentives for reporting their inventions and for contributing to the commercialization process. One typical example of a compensation scheme is found at the University of Oslo, where 1/3 of the net income goes to inventor, 1/3 goes to the university (25 percent goes to the research group as a research fund and 8 percent goes to the Faculty for innovation-related work) and 1/3 goes to the TTO (which is a separate legal entity, owned by the university). Another example is Copenhagen University, as well as the University of Aarhus, where the inventor gets 1/3 of the net income from the point in time when accumulated external expenses related to patenting and commercialization are recovered. Until external expenses have been recovered, the inventor gets 15 percent of any earnings, with a cap at 75.000 DKK (10.000 €).

If the institution chooses not to acquire rights to the invention, the employee is normally free to dispose of the invention as he or she pleases. The employee may, for instance, start commercial exploitation of the invention alone or in co-operation with external parties. For such cases, the Danish act contains a rule that is not found in the other countries, by which the institution is entitled to reasonable compensation. In practice, the institution's share is often set to 1/3 of the net earnings.

Perhaps the most notable difference between the Nordic acts concerns the employees' *right to publish* inventions they have made. The right to publish is unheard of in industry and closely connected to the principle of academic freedom. The preparatory works to the Norwegian act says that the freedom to publish research results is a 'fundamental principle' and a 'precondition for academic debate, criticism and quality control of research results'.[20] Inspired by the Stanford University policy, a right to publish was adopted (Section 6), giving teachers and academic staff at universities and colleges the right to publish their inventions. The intention to publish must be communicated to the institution when notification of the invention is given, and publishing must not infringe any third party rights, for instance the rights of external research partners to acquire and patent research results.[21] The idea behind this provision is that the researcher shall have the final say as to whether the invention shall be patent-protected or be placed in the public domain. Hence, if the employee invokes his or her right to publish, neither the institution nor the employee may patent the invention. But if the employee has not taken steps to publish the invention within one year, for instance by submitting a manuscript to a scientific journal, the institution shall nevertheless be entitled to acquire the invention.

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[20] Ot.prp. (government proposal) no. 67 (2001–2002), 7.

[21] A similar right to publish has been proposed in Sweden, *see* SOU 2005: 95 Nyttiggörande av högskoleuppfinningar (Exploitation of university and college inventions).

A right to publish is found also in the Finnish act, but limited to inventions made in open research. The inventor must publish or notify the institution of his or her intention to publish within six months (Section 6). Furthermore, and in contrast to the Norwegian act, the inventor may even choose to exploit such inventions commercially. For inventions made in contract research, on the other hand, the inventor has neither a right to publish nor a right to commercial exploitation (Section 7).

The Danish act is, again, the most restrictive. The inventor has no right to publish inventions to which the institution may claim ownership. The institution may, however, at its own discretion and in special circumstances accept not to patent or commercially exploit an invention (Section 13). This provision is intended to be an ethical 'safety-valve', but is probably not very effective, since it is the institution, and not the inventor, that has the final say in the matter.

Some inventions may be exploited in ways that could raise serious ethical concerns. In such cases the inventor may want to keep the invention secret. Some would perhaps say that the principle of academic freedom implies also a right to refuse to publish. None of the Nordic acts recognize, however, such a right (in contrast to the German Act Section 42(2)). The institution is certainly not free to publish the researcher's manuscript because that would amount to an infringement of his or her copyright, but it may publish technical information that communicates the invention to the public, by way of filing a patent application or otherwise.

4. Discussion and Conclusion

As we have seen, there are substantial differences between the Nordic countries in this area. The countries have chosen different regulatory models, ranging from Sweden, which has not yet adopted any provisions, to Denmark and Finland, which have introduced legislation dealing specifically with inventions in the higher education sector.

There are also significant differences in substantive law, most notably with respect to three issues:

Firstly, the institutions' right to acquire employee inventions range from Sweden, where institutions cannot claim any rights at all, to Denmark, where they have practically unlimited rights to obtain ownership.

Secondly, inventors' right to publish to avoid patenting of the inventions, is most extensive in Norway and Sweden, where they can publish freely, unless contractual restraints apply. In Denmark it is the most restrictive, where institutions may patent inventions at their own discretion.

Thirdly, there are notable differences regarding the inventors' right to remuneration. Finland and Norway have both adopted the traditional rule entitling inventors to reasonable compensation based on a concrete evaluation of all relevant circumstances of each case. Denmark has chosen a more modern approach, by obliging institutions to adopt a compensation policy, which must be approved by the Ministry of Research. Sweden has no specific regulation in this respect. Contract clauses that are deemed to be unreasonable may, however, be modified or set aside by the courts according to the general Act relating to agreements etc. 1915 (Section 36).

It is somewhat surprising that the legal situation has developed so differently in the Nordic countries, which have a long history of legislative co-operation in the area of private law. Intellectual property law, as well as contract law, is harmonized to a very large extent. Furthermore, the differences in this area may be seen as particularly puzzling in view of the fact that all countries share a common goal: To maximize dissemination and commercial exploitation of research results from the higher education sector. It is hard to say why the law relating to employee inventions in the higher education sector has developed so differently. It may have something to do with the influence of labor organizations. It may also have something to do with the connection to public law and labor law, which is not harmonized. Moreover, there seems to be a general tendency towards a weakening of the Nordic legislative co-operation. At any rate, it is clear that co-operation in this particular area has not been a political priority.

The differences observed prompt the question if legal harmonization is unimportant in this field of law. Are the legal solutions adopted significant for the sector's ability to contribute to innovation and value creation in the society? Are there systematic differences in university and college research and innovation that stem from different rules concerning employee inventions? These questions are hard to answer, and I shall not make a full attempt here. It is, however, reasonable to believe that other factors are far more important, such as research funding, financial support for commercialization processes, industry contacts and competent Technology Transfer Offices (TTOs). Some recent studies seem to support this assumption. A comparison of results obtained by Swedish and German universities concluded that patent activity was rather unaffected by differences in the legal regimes of the two countries. Other factors were more important, in particular well-working infrastructure and incentives to patent.[22] In a Norwegian study, researchers pointed to financial support and industry contacts as the most important factors for successful commercialization processes. Institutional support and result-based incentives were thought to be of lesser importance.[23] According to an evaluation undertaken in Denmark in 2004, the institutions' competence with regard to licensing and spin-off activities is of key importance. Scientific staff expressed concern about the institutions' lacking ability to put patented inventions into actual commercial use, but were quite pragmatic in its attitude towards the regulatory framework.[24]

Moreover, common sense indicates that the differences noted above are of limited practical importance.

Firstly, the institutions' legal right to acquire employee inventions against the will of the inventor is probably rarely used in the countries where it exists. Major Norwegian institutions report that inventions are hardly ever acquired against the will of the inventor. It is generally thought to be essential for successful commer-

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[22] *See* SELLENTHIN, Beyond the Ivory Tower – A Comparison of Patent Rights Regimes in Sweden and Germany (2006).

[23] *See* GULBRANDSEN, *supra* note 15, at 71.

[24] *See* the evaluation report, *supra* note 14, at 49–51.

cialization of an invention to have the inventor 'on the team'.[25] The Danish evaluation panel reports that the inventor is often the most important person in the commercialization process. His or her informal contacts with industry are by far the most important channel to prospective partners and customers.[26] Besides, should it be deemed necessary to modify, supplement or clarify the legal situation resulting from legislation, it is always possible to do so contractually. For instance, this is possible by including in the employment contracts an obligation for employees to transfer their inventions to the employer.

Furthermore, there is no indication that TTOs and university spin-offs are less successful in Sweden, where institutions have no legal right to acquire employee inventions, than in the other Nordic countries. On the contrary, studies indicate that Swedish institutions are amongst the most successful in Europe when it comes to commercialization of research results.[27] Sweden also has the highest number of technology transfer institutions with 58, compared to 31 in Denmark, 27 in Finland and 21 in Norway.[28] To mention but one example, Karolinska Institutet Innovations AB, the TTO of the Stockholm medical university Karolinska Institutet, has since its establishment in 1996 reviewed more than 750 inventions in the biomedical area, resulting in around 40 start-up companies and 30 license deals with international biotech and pharma companies. The spin-offs have raised about 500 million SEK (53 million €) in venture capital and they employ more than 100 people.[29] Karolinska thereby outperforms the most successful institutions in Denmark and Norway. The Technical University of Denmark, for instance, reports an average of about 50 disclosures yearly, resulting in 5 to 7 license deals, sales or spin-offs.[30] In Norway, the Norwegian University of Science and Technology (NTNU) in Trondheim reports about 100 disclosures yearly, resulting in 10 to 20 patent applications and 5 to 8 projects reaching the market (licensing, sales, spin-offs). The TTO at the University of Oslo, Birkeland Innovation, reports approximately 70 disclosures, 10 to 15 patent applications and 2 to 6 commercialized proj-

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[25] *See* STANKIEWICZ, *supra* note 12, at 85.

[26] *See* the evaluation report, *supra* note 14, at 51.

[27] *Id.,* at 42.

[28] *See* EUROPEAN COMMISSION, Improving institutions for the transfer of technology from science to enterprises – Expert group report 14 (2004). 'Technology transfer institutions' are defined as institutions which provide, continuously and systematically, services to publicly funded or co-funded research organisations in order to commercialise their research results and capacities, and include TTOs, technology parks, incubators etc.

[29] Information obtained from the website <www.karolinskainnovations.ki.se> (as of February 2008). – The TTO connected to Lund University has also been successful. Exact figures are not published, but LU Innovation reports that it received approximately 100 disclosures of new inventions in 2007. LU Innovation does not acquire rights to inventions, but assists inventors in connection with patenting, financing, business consulting, establishment of spin-off companies etc. It indicates that about 50 patentability evaluations are performed yearly, resulting in 10 to 20 patent applications (information obtained directly from LU Innovation). Licensing is handeled by another TTO, Forskarpatent.

[30] Information obtained from the website <www.dtu.dk> (February 2008).

ects yearly.[31] The average numbers for European technology transfer institutions were 6.2 patent applications and 5.8 issued patents in 2002.[32]

Secondly, a legally protected right to publish is probably of limited practical importance, although it may have a symbolic function. Experience from Norway indicates that this right is practically never invoked. The University of Oslo reports only two examples during the past five years, and NTNU reports none. The low figures may of course, to some extent, be due to lack of knowledge or disrespect for the regulatory framework. According to a recent Norwegian study, only about 20 percent of the scientific staff had firm knowledge of the new legislation, and more than 50 percent had no knowledge at all. On the other hand, researchers that are aware of the rules seem to comply with their obligations. Less than 15 percent answered that they were readily prepared to circumvent the provisions of the Act.[33]

Thirdly, there is no indication that legal regulation of employees' right to remuneration is determinative for the compensation policies actually adopted. As noted above, a compensation scheme giving 1/3 of the net income to the inventor is widely applied, even in Sweden where no rules exist in this respect.

The most important feature of university employee inventions law is, perhaps, its non-mandatory character, enabling institutions to conclude those contracts that are deemed necessary or desirable for pursuing the aim of bringing university and college research to the marketplace. Such contracts are normally decisive for the ability to obtain external funding from research councils and the like, because major contributors tend to require that ownership to inventions is transferred to the institutions. They are also essential in connection with joint research projects with industry, where the industry partners normally will require such rights. In this respect, legislation in the Scandinavian countries and in Finland provides the necessary flexibility.

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[31] Information obtained directly from NTNU Technology Transfer and Birkeland Innovation. – Larger numbers are reported by SINTEF, which is, however, a pure research and development organisation, not an educational institution. SINTEF claims that 100 businesses, counting approximately 2000 employees, have emerged from the research units at SINTEF over the past 20 years (information obtained from the website <www.sintef.no> (February 2008). – The whole research institute sector in Norway, counting 9400 researchers in 2005, filed 780 patent applications and received 233 patents during the period from 1997 to 2006. A total of 1070 licence agreements were concluded, resulting in 175 million NOK (22.3 million €) in licence fees, *see* Report on Science and Technology Indicators for Norway, 2007-edition, from The Research Council of Norway.

[32] *See* EUROPEAN COMMISSION, Improving institutions for the transfer of technology from science to enterprises – Expert group report 28 (2004).

[33] *See* Evaluering av NTNU Technology Transfer (Evaluation of NTNU Technology Transfer), NIFU-STEP Working Paper 36/2006.

Patent Trolls – Menace or Myth?

Christoph Ann

1. Marketing HIPPO – Individual Inventor or Grown Patent Troll?

In 1997 I was a research associate (*wissenschaftlicher Assistent*) at Tübingen University's Faculty of Law and a member of the German bar. Together with my friend Dirk Rothhaupt, who was an orthopaedic surgeon, I filed PCT patent application PCT/DE97/00255 for a 'Device for training the back muscles by the transmission of oscillations to a sitting test subject' with the German Patent and Trade Mark Office in Munich.[1] Our invention, which we called 'HIPPO' (being unaware of the word's connotation in English), was the result of Dirk's experience with diskectomy patients in his medical practice. HIPPO essentially addressed the problem of lower back pain and had tremendous economic potential as it provided an effective treatment for lower back pain. The number of absences from the workplace due to lower back pain had a considerable harmful impact on the national economies of all developed nations due to the ever growing white collar work force. It was for this reason that we believed our invention showed promise on both a medical as well as a business level.

Others shared our view of HIPPO's prospects. The Free State of Bavaria was prepared to accept us into its start-up incubator TOU-program[2] on condition that we gave up our positions in the medical profession and in academia. This, however, we were unwilling to do, given the considerable investment of time and effort we had made in our respective careers. For the same reason we had decided early on not to produce and/or market HIPPO ourselves.

Given the obvious potential of our idea – Panasonic launched as recently as the fall of 2007 what it calls a 'Core Trainer', apparently using the HIPPO's concept[3] – our plan had been to first patent our invention and then find a licensee who would be willing to share HIPPO's undoubtedly bright future and the resulting profits in royalty payments with us. Finding a licensee, however, turned out to be a challenge, especially as we continued to work full-time in our respective professions. All major health care companies that we approached either ignored our request or indicated that, while HIPPO was a good idea, unfortunately it did not fit into their product portfolios. Producers of exercise equipment acknowledged interest but told us that they did not have sufficient means to manufacture our invention. Some acknowledged that they would be happy to market HIPPO once we had found a

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1 PCT/DE97/00255.

2 Available at <http://www.startup-in-bayern.de/index.php?id=130≥ (as of April 2008).

3 Available at <www2.panasonic.com/consumer-electronics/shop/Personal-Healthcare/Exercise-Equipment/model.EU6441A_11002_7000000000000005702> (as of April 2008).

manufacturer. With hindsight, this first part of our search for a licensee was the most frustrating episode in the life of our HIPPO.

Shortly before the end of the (then) 20-month period that according to Article 22 PCT any PCT application could buy, we finally found a licensee. Without this licensee we would have been unable to see the PCT's national phase through with its high translation costs and fees for every designated state due to a lack of funds.

As a Professor of IP law I ask myself today: Did our having obtained a patent and holding it without any plan and/or means to use it other than by licensing make us a patent troll? Nobody has yet come up with an accepted definition of the term, but according to Peter Detkin, Intel's former associate general counsel and director of patents, licensing, and litigation, a patent troll is 'somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and in most cases never practiced'.[4] This definition certainly applied to us: we held a patent that we were not using and, lacking all necessary means, had no intention of using. Nevertheless we were trying to make a profit from HIPPO, and the more the better. So according to Detkin's 2001 definition there was no doubt that Dirk and I were a patent troll: people who do not produce anything from the patent but require others to pay licensing fees.

From the perspective of patent law doctrine things looked and still look differently: patent law does not ask applicants what their plans are or the business purposes for which protection is sought. As long as an invention is industrially applicable – or under US Patent Law merely *useful* – and the requirements of technicality, novelty, and inventiveness are met, it will be patented regardless of whether the applicant will use the invention himself, let others use it in return for licensing fees, or even simply prevent others from using it. In other words, patent law almost entirely disregards the use that a patent holder will make of its right and is blind to the purpose for which protection is sought.

This is consistent with patent law's conceptual underpinnings: to reward innovative activity (reward theory), to respect an inventor's intellectual property (natural rights theory), and to offer consideration for the invention's disclosure (contract theory). It is also the reason why use of a patented invention today is clearly not a prerequisite for the validity of patent protection. In other words, patents reward inventors, not products. Just like the holder of tangible property, the holder of a patent is free to exclude others from the patented invention's use – without the need to give reasons. From a public policy standpoint this is fair and acceptable because the patent holder's position is counterbalanced by the patent term's limitation of 20 years and by the potential for compulsory licenses to be imposed.

Therefore Detkin, who now works for Intellectual Ventures, a company with 100 employees holding between 3,000 to 5,000 patents,[5] has updated his definition of a patent troll and now says: 'Patent troll has become just a word for "A plaintiff I don't like"'.

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[4] SANDBURG, Trolling for Dollars: Patent Enforcers are Scaring Corporate America and Getting Rich – Very Rich – Doing It, The Recorder, July 30, 2001.

[5] *Id.*

2. Prominent Cases

This is not to say that patent trolls or an activity that can be called patent trolling do not exist. It is, however, a reason to ask whether 'patent troll' might be more of a label than a phenomenon. Below are a few cases that show the vagueness of the term, the lack of care with which it is used – possibly also the ulterior motives for such use – and (thus) the difficulties involved in applying it to plaintiffs in patent infringement proceedings.

2.1 AT&T Corp. v. Excel Communications, Inc.[6]

On July 26, 1994, AT&T obtained a patent for a 'Call Message Recording for Telephone Systems'[7] describing a message recording for long-distance calls enhanced by a primary interexchange carrier indicator. Essentially, this invention enabled long-distance telephone carriers to differentiate their billing of subscribers according to whether their subscribers called numbers that used the same or other long-distance carriers. After some time AT&T sued Excel Communications for infringing its patent before the U.S. District Court for the District of Delaware.[8] The CAFC disagreed, reversed the district court's judgment of invalidity on this ground and remanded the case for further proceedings.[9]

In the press coverage that its proceedings against Excel received, AT&T has often been called a patent troll.[10] This is remarkable given the fact that AT&T did not even meet the aforementioned extensive definition provided by Detkin in 2001, *i.e.* a patent troll being a patent holder trying to make a lot of money without practicing his patent or – at least – intending to do so. In the case at hand, AT&T had obtained the enforced patent for one of its own inventions and was using it in practice. Nevertheless, it is noteworthy that AT&T was labelled as a patent troll, leaving the question as to why this was so. Is it possible that the only reason for this had been its effort to enforce a patent that the defendant had subsequently attacked – unjustly, as the CAFC's affirmative decision had later shown?

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6 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999), cert. denied, 528 U.S. 946.

7 US-Patent No. 5,333,184.

8 *See AT&T Corp. v. Excel Communications, Inc.*, No. CIV.A.96-434-SLR, 1998 WL 175878, at *7 (D. Del. 27 March 1998).

9 *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999).

10 GARRETSON, Intellectual Security: Patent Everything you Do Before Someone Else Does, available at <http://www.cioinsight.com/c/a/Trends/Intellectual-Security-Patent-Everything-You-Do-Before-Someone-Else-Does/> (as of April 2008), at 4; GLAZIER. Patent Trolls: Recognition, Protection and Defense, available at <www.techadvantage.org/Conference/Handouts/Documents/patenttrolls.pdf+GLAZIER.+Patent+Trolls:+Recognition,+Protection+and+Defense&hl=de&ct=clnk&cd=1&gl=de> (as of April 2008)..

2.2 New Technologies Products, Inc. (NTP) v. Research in Motion, Ltd. (RIM)[11]

Since its foundation as a one-man enterprise in 1992, NTP has launched numerous patent applications and has built up a portfolio of approximately 50 patents in relation to the mobile telecommunication industry. Without ever having manufactured a product or used one of its patents in practice, in 2001 NTP brought a suit for patent infringement against RIM, the Canadian producer of what has become known as the 'BlackBerry-technology'. After five years of trial during which many had feared that BlackBerries in North America would be disconnected and thus rendered useless, the case was settled in March 2006 with RIM paying NTP an astounding $ 612.5 million.[12]

Eight months later NTP sued Palm, but in March 2007 the trial judge stayed NTP's suit because the USPTO, upon re-examination, had revoked some of NTP's patents on the grounds that they merely described prior art.[13] Another six months later and despite its trial against Palm having been stayed, in September 2007 NTP sued Verizon Wireless, Sprint Nextel, T-Mobile USA, and AT&T, America's top four mobile communication services providers, before the U.S. District Court for the Eastern District of Virginia. NTP claimed that the defendants had infringed eight of its patents related to products, processes and services that wireless e-mail systems need in order to push e-mails to mobile phones and sought injunctive relief and monetary damages in a jury trial.[14]

As with AT&T, NTP has often been called a patent troll, but the facts here are different to the aforementioned AT&T case: other than AT&T's, some of NTP's patents seem to be of debatable quality and have therefore been revoked by the USPTO, notwithstanding NTP's appeal of the respective decisions. The case therefore points to patent quality as one element of the phenomenon patent troll.

2.3 Walker Asset Management, Ltd. (Priceline.com) v. Expedia.com[15]

In 1998 Priceline.com patented a reverse auction model whereby the auctioneer lowers the price of an item until a bidder places a bid and the item can be sold or a previously determined minimum price is reached.[16] Expedia.com operated a similar service. It was called 'Price Matcher' and allowed customers to bid online for unsold airline tickets and hotel rooms. In October 1999 Priceline.com sued Expe-

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[11] Civil Action Number 3:01CV767-JRS (E.D. Va. August 5, 2003).

[12] *See* KELLEY, BlackBerry maker, NTP ink $ 612 million settlement, March 3, 2006, available at <http://money.cnn.com/2006/03/03/technology/rimm_ntp/index.htm> (as of April 2008).

[13] *See* Press Release by RIM, February 22, 2006: available at <http://www.blackberry.com/news/press/2006/pr-22_02_2006-01.shtml> (as of April 2008).

[14] *See* <http://www.reuters.com/article/technologyNews/idUSN1242130020070912> (as of April 2008).

[15] Suit filed on October 10, 1999 before the U.S. District Court for the District of Connecticut.

[16] US-Patent No. 5,794,207 (granted on August 11, 1998) (Method and apparatus for a cryptographically assisted commercial network system designed to facilitate buyer-driven conditional purchase offers' – also known as 'Name-Your-Own-Price' model).

dia.com and its then parent corporation Microsoft on the grounds that Expedia's 'Price Matcher' infringed Priceline's patent. In 2001 both parties settled agreeing on a license: Expedia would be able to continue offering its services in return for paying royalties to Priceline.

Despite having patented and practiced its own invention, Priceline was charged with patent trolling.[17] The real problem, however, had been the quality of Priceline's patent which had been granted by the USPTO despite the questionable novelty of Priceline's invention that had encompassed a reverse auction which had long been known as the 'Dutch (Tulip) Auction'. The case is yet another example of the relevance of patent quality to patent trolls and whether patent applicants need to be concerned with the quality of their patents or whether patent quality is the responsibility of patent offices.

2.4 Amazon.com v. Barnesandnoble.com[18]

In 1999, the internet bookseller Amazon.com Inc. obtained its well known '1-Click-Patent'[19] on software that provided customers with the option of storing their addresses and credit card information for online orders. Amazon had created its invention because it had noticed that many of its customers began filling their shopping carts but then aborted the purchase they obviously intended to make, presumably because of the lengthy check-out and payment procedure. Amazon therefore wanted to facilitate and expedite online purchases so that customers would no longer leave the site prematurely, *i.e.* before completion of their intended purchase. When Amazon's competitor Barnesandnoble.com, LLC, a wholly-owned subsidiary of Barnesandnoble.com, Inc., used the same method, Amazon.com brought suit against Barnesandnoble.com, Inc., and Barnesandnoble.com, LLC, for patent infringement and moved for an injunction that would prohibit Barnesandnoble.com, LLC, from using its website's feature 'Express Lane,' a functional equivalent of Amazon's '1-Click' feature.[20] Under conditions never publicly disclosed the case was settled after Barnesandnoble.com, LLC, made a second mouse-click part of its online sales process.

Again the plaintiff, Amazon, was charged with using a 'trivial patent' for the purpose of patent trolling, even though its patent – which in light of the fact that a '1-click' check-out procedure can hardly be called innovative, could indeed be called unworthy – had initially and despite a pending review, been granted by the USPTO. The application was, however, rejected by the European Patent Office (EPO).[21]

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[17] Available at <http://www.cioinsight.com/c/a/Trends/Intellectual-Security-Patent-Everything-You-Do-Before-Someone-Else-Does/>, (as of April 2008), at 4.

[18] *Amazon.com, Inc. v. Barnesandnoble.com, Inc.,* and *Barnesandnoble.com, LLC*, 73 F.Supp.2d 1228, No. C99-1695P, 1999 WL 1095502 (W.D. Wash. 1999).

[19] US-Patent No. 5,960,411 (granted on September 9, 1999) (Method and system for placing a purchase order via a communications network).

[20] The preliminary injunction was vacated and the case was remanded for further proceedings by the CAFC, February 14, 2001, 239 F.3d 1343, 57 USPQ2d 1747.

[21] *See* US Patent Office decimates Amazon's 1-Click Patent, OUT-LAW News, October 10, 2007, available at <http://www.out-law.com/page-8556> (as of April 2008).

2.5 Società Italiana per lo Sviluppo d'Ellettronica S.p.A. (Sisvel) v. SanDisk Corp.

Sisvel is an Italian company that manages and licenses numerous European patents covering MP3 technology on behalf of the owners (*e.g.* Philips, France Télécom, TDF, Institut für Rundfunktechnik GmbH), including the transmission of music over the internet and its reproduction on players such as Apple's iPod. Sisvel manages over 500 individual licensees[22] who comprise most of the principal manufacturers and/or sellers of MP3 players, *e.g.* Apple, Nokia, Motorola, Sony Ericsson, and Panasonic. Sisvel itself is not a manufacturer and is solely responsible for enforcing the patents of its clients.

Due to its aggressive approach to enforcement, some have called Sisvel Europe's 'most notorious patent troll'.[23] SanDisk has never acquired a license from Sisvel and despite convictions by British courts[24] denies ever having infringed patents managed by Sisvel. Sisvel has also brought a suit against SanDisk in Germany and had SanDisk's stand at Germany's leading consumer electronics fair, Berlin's '*Internationale Funkausstellung*', raided. However, upon review,[25] the Berlin District Court (*Landgericht Berlin*) held this raid to be unlawful.[26]

Here, the charge of Sisvel being a patent troll was based on the 'aggressiveness' with which it enforced its clients' patents. But can 'aggressiveness' alone be sufficient reason to put in question a plaintiff's position, especially when the precise nature of its business is to protect the rights of its clients and thus form part of its contractual obligations towards these clients?

The criteria put forward for labelling plaintiffs in patent infringement law suits as patent trolls – and thus barring them from seeking legal protection for their patents – are:

- The troll does neither manufacture nor provide services.
- The troll has not invented the patented technology and (thus) cannot provide technical service or backup to its licensees.
- The troll typically is not a competitor.
- The troll is 'aggressive' due to its 'predatory' rather than (merely) 'competitive' business model.

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[22] *Sandisk Corporation v Koninklijke Philips Electronics NV & Ors*, February 27, 2007, [2007] EWHC 332 (Ch).

[23] *See* <http://ipgeek.blogspot.com/2006/09/sisvels-brings-patent-wild-west-into.html> (as of April 2008).

[24] *See* <http://eetimes.eu/design/196900047> (as of April 2008).

[25] *See* <http://ipgeek.blogspot.com/2006/09/sisvels-brings-patent-wild-west-into.html> (as of February 2008).

[26] *See* <http://www.tech2.com/india/news/mp3-audio-players/berlin-rules-sansa-mp3-players-seizure-legal/3299/0> (as of April 2008).

3. Criteria for Patent Trolls – Are They Convincing?

When using a term as obviously pejorative as 'Patent Troll',[27] there should be reasonable certainty that patent trolling is an illegal activity. Lack of desirability does not suffice, because nobody wishes to be accused of infringing a patent, or, even worse, to be sued in a court of law.

Scrutiny of the aforementioned criteria raises questions as to their persuasiveness.

Argument number one: Patent trolls do not offer a product or service beyond holding the alleged infringed patent. Even though a defendant may feel that being sued for a patent infringement is unreasonable and unjustified, particularly where the plaintiff insists on protecting its patent when it does not even intend to use the alleged infringed patent, this argument is not a valid concern of patent law. This is because, as mentioned above, the patent system is not concerned with the legitimacy of a patent's use or the motives of its holder. Whether a patent is being put to good or at least some use by its holder is completely irrelevant, and justly so. Patents, as a rule, shall do no more than reward and promote innovative activity and encourage the disclosure of its results.[28] Compulsory licenses are the only exception to this rule. Amounting to an expropriation, which requires extreme circumstances, compulsory licenses are however rarely granted.

Argument number two: Patent trolls are often not inventors and thus do not deserve the same legal protection as inventors. Even if the plaintiff in an infringement trial has not personally invented the infringed patent, this argument is not in line with the aforementioned basis of patent law, namely that patent law is blind to (any of) the motives of a patent holder so long as the patented invention – in EPO-Europe – meets the criteria laid down in Articles 52 to 57 EPC. In addition it does not take into account whether an applicant has actually invented the invention for which protection is sought. The inventor needs to be named, but little legal consequence follows from that. Even US patent law which currently gives precedence to the 'first to invent' rule, is now seriously considering moving to a 'first to file' system.

Furthermore, it needs to be noted that the patentee's reward largely depends on the ability to sell and transfer the patent. If, in other words, patent law tied protection to the patent holder's status as an inventor, this would drastically reduce the patent's transferability because purchasers would enjoy a position inferior to that of the original inventor. This inferiority of acquired patents would inevitably reduce the prices that inventors could realize for their patents and thus the rewards that non-producing inventors could enjoy. Given the fact that most patents are sold because

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[27] *See* COE, No Name-Calling In Rambus Patent Case: Judge, IP.Law 360, January 28, 2008, referring to a ruling of Judge Ronald M. Whyte, available at <http://ip.law360.com/Members/ViewArticlePortion.aspx?Id=45282&ReturnUrl=..%2fsecure%2fViewArticle.aspx%3fId%3d45282> (as of April 2008).

[28] As an example that much of the patent world does not see anything wrong in inventors marketing solely their knowledge, see Bishop Steering, a case-study on WIPO's official website, available at <http://www.wipo.int/sme/en/case_studies/bishop.htm> (as of April 2008).

inventors lack the ressources necessary for production, tying a patent's power to its holder's ability to produce would seem like an elevated form of expropriation. It would be unjust and contradict patent law's goal: to promote innovative activity.

Argument number three: Patent trolls typically do not compete with their 'prey'. This may be true, but the market position of inventors and/or patent holders has never been a concern of contemporary patent law. Patent holders can claim protection against any infringer of their patents without having to prove a worthy cause for doing so. Absent irregular circumstances this is the nature of any property right, be it tangible or intangible. There is also no link between the right to seek legal protection before a court of law and the plaintiff's capacity to use its patent in order to produce. This is not changed by the fact that in practice infringement claims are often settled by granting cross-licenses.

Argument number four: Patent trolls have an exclusive interest in damages, not in injunctive relief. Again this may be true, but not only are both closely linked because the recovery of damages is not an option, but the plaintiff is entitled to claim injunctive relief, *i.e.* to shut down any infringers' production or sales. Furthermore, the possibility to recover damages for past infringements is part of a patent's value. Linking damage awards (for past infringements) to patent holders claiming injunctive relief for (future) infringements would be uncommon from a legal point of view and would not result in any substantial change. Plaintiffs would continue to use injunctive relief as a threat even where they are primarily interested in damages and licenses. The last but by no means least reason against limiting the recovery of damage awards as an option for the holders of infringed patents – or IPRs in general – is that this would bring a windfall profit for infringers. They could keep the fruits of their indisputably unlawful conduct.

4. Additional Aspects

In addition to the foregoing arguments two more aspects seem to indicate that 'patent troll' could be a convenient term in order to dispose of plaintiffs that have grown beyond mere nuisances for patent infringers. These aspects become clear when looking at the actors and interests involved.

The first aspect is the allocation of market power and the resulting media access. In typical patent troll settings it is usually the defendant, and not the plaintiff, who has superior media access. Even though an imbalance in media control does not necessarily make a plaintiff inferior, it does beg the question whether it is correct to speak of the respective defendants as 'prey', especially when courts find that such defendants have in fact infringed the patents of the – allegedly – 'trolling' plaintiff.

The same aspect comes into play with regard to the (indeed more than necessary) US Patent Reform Act of 2007, part of which has been launched against patent trolls.[29] Again, it will not be the (perceived) trolls but their (perceived) prey that will have superior access to the legislature and its actors.

[29] H.R. 1908, 110th Cong. (2007).

The second aspect is the notorious underfunding that most individual inventors face. At some point many of them will have to sell their patents and other IPRs simply to survive. If, however, in these circumstances investors are a problem, why don't the producing prey, who should know their market best, step in? These days, corporations all over the globe have substantial IP and legal departments. They also have the funds. So why don't they step in and buy up the technology that could hurt them? If patents are cheaply available for patent trolls they should also be cheaply available for manufacturers, especially as patent-troll-setting manufacturers use the technology and should know about adjacent patents that exist.

5. Conclusion

In summary, it seems that patent trolls are both a menace and a myth. They are a myth in that to date no exact definition is available that distinguishes patent trolls from regular claimants in infringement settings. Case law seems to indicate that few plaintiffs that have been named patent trolls by often resourceful patent infringers have ever been successfully charged with procedural wrongdoing or at a minimum dubious behaviour. Rather, the term patent troll seems to have become part of PR strategies aimed at discrediting plaintiffs. Consequently, courts have started prohibiting the term's use.[30]

This, however, is not to suggest that defendants' complaints against plaintiffs they labelled patent trolls were nothing but defamatory. There were and still are problems. These problems, however, are mostly grounded in circumstances beyond the control of the infringement claimants named as patent trolls and lie in deficiencies of the patent system and other parts of the law, for a large part in the US.

Deficiencies of the patent system are poor patent quality, mainly in the form of overly broad patent claims and patent thickets, and extensions of the patent system, *e.g.* the patenting of business methods that – for good reasons – is not admissible in most non-US jurisdictions. One remedy would be a critical review of recent changes in patentable subject matter and the granting rate. When a patent office grants patents for more than 90% of all applications and others grant for less than 50%, there seem to be problems of patent quality. Another remedy might be a review of the present international patent classification (IPC) system in order to better achieve its purpose: creating transparency and allowing for the identification of every patent that the user of a technology should know about in order to avoid patent infringements.

Another part of the problem and a justified complaint with regard to patent trolls are aspects of the present US law on civil procedure. Even after the US Supreme Court adjusted the threshold that needs to be met in order to obtain injunctive relief,[31] procedural rules favoring plaintiffs have remained a problem. Unlike most European systems, US civil procedure makes it easy for claimants to sue. For the most part there is no duty to reimburse the attorney fees of the winning party and

[30] *See supra* note 27.

[31] *See eBay, Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837 (2006).

with contingency fees being admissible, patent holders incur little financial risk when filing a suit for patent infringement. The resulting problems are by no means new. In the late 1970s and early 1980s they gave rise to a problem that became known as 'orangemail'. Alluding to the term 'blackmail' this word referred to PI settings involving Dow Chemical Corp.'s defoliant 'Agent Orange' that was used during the Vietnam War injuring large numbers of civilians and soldiers on both sides. There, claimants had used the leverage that the aforementioned rules provide in order to suggest that, instead of defending its position in court, Dow Chemical should have settled for a fraction of the cost that the respective PI lawsuit would have cost the company, even if it prevailed.[32] Today, (true) patent trolls in the US seem to use similar tactics, taking advantage of the very factors that have favored plaintiffs in the past[33] and which explain why patent trolls for the most part have remained an American phenomenon and have not been able to establish themselves elsewhere with any significance.

Restricting patents' transferability, in general or as part of bankruptcy laws, in order to keep patents out of the reach of investors is not an option. This would solve the problem of third parties aggressively enforcing acquired rights, or rather parts of it, at the inventors' expense, *i.e.* at the expense of the entity the patent system is intended to reward. Touching inventors would mean tampering with the delicate balance that the patent system strikes between society's interests in having inventors share there inventive findings with the public and inventors' interests in being adequately rewarded. In order not to distort the patent system as a whole, inventors and their interests would therefore need to be protected.

Finally, it seems fair to say that by being called trolls, patent holders trying to exercise their rights are being held responsible for problems in patent granting and enforcement that their actions may highlight, but that are beyond their reach and control. As long as these problems have not been addressed, patent trolls will remain both a menace and a myth. Touching inventors, by restricting their possibilities to enforce patents or to use them as assets, would not be fair and thus should not be an option – not just in the interest of HIPPO.

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[32] ANN, Innovators in the Crossfire - A Policy Sketch for Unknowable Risks in European and American Product Liability Law, 10 Tulane European & Civil Law Forum 173, 188 (1996).

[33] GLAZIER, *supra* note 10.

Liability 2.0 – Does the Internet environment require new standards for secondary liability? An overview of the current legal situation in Germany

Alexander Bayer

While the notion of secondary liability ('Störerhaftung') is a known legal instrument in Germany that has been used in connection with infringements of intellectual property rights and other recognized forms of unlawful behavior, such as acts of unfair competition, its requirements and scope are not yet determined. This is, particularly true with respect to legal offences committed online, *i.e.* through services provided by Internet Service Providers ('ISPs'). In the following, the author will (1) briefly address the origin and the scope of the notion of secondary liability; (2) show how recent court decisions have addressed and applied this form of liability to ISPs; (3) comment on these developments; and (4) point out the impact of technology on the notion of secondary liability and the legal consequences thereof.

1. Origin and Scope of Secondary Liability

1.1 Origin of Secondary Liability

Although the German Supreme Court ('Bundesgerichtshof', 'BGH') dealt with the concept of secondary liability in the past on a regular basis, the dogmatic origin for this concept remains open. While the debtor of such claims ('Störer' = disturber) is mentioned in Section 862 and Section 1004(1) of the German Civil Code ('Bürgerliches Gesetzbuch', 'BGB'), the scope and requirements of secondary liability is not laid out there.[1] In absence of its statutory legal foundation, courts saw the necessity to develop the concept of secondary liability. The first decisions of the BGH date back to the mid-1950s.[2] The understanding of German courts with respect to the concept of secondary liability has, however, not been consistent.[3] While courts originally construed the scope of secondary liability very broadly in

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[1] After initially claiming the opposite without further reasoning (*see* German Federal Supreme Court, (Bundesgerichtshof, BGH) October 18, 2001, I ZR 22/99, 2002 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 618, 619 – *Meißner Dekor I*, with further references), the BGH did not cite these provisions any more in its recent decisions: German Federal Supreme Court, (Bundesgerichtshof, BGH) July 12, 2007, I ZR 18/04, 2007 GRUR 890 – *Jugendgefährdende Medien bei eBay.*

[2] German Federal Supreme Court, (Bundesgerichtshof, BGH), May 18, 1955, I ZR 8/54, 1955 GRUR 492 – *Grundig-Reporter* (copyright matter); January 15, 1957, I ZR 56/55, 1957 GRUR 352 – *Pertussin II* (trademark matter).

[3] *See* AHRENS, 21 Thesen zur Störerhaftung im UWG und im Recht des Geistigen Eigentums, 2007 Wettbewerb in Recht und Praxis (WRP) 1281.

unfair competition matters,[4] they limited the liability for the contributing act of the so-called 'disturber' ('Störer') to infringements of intellectual property rights. In the course of time, this perception changed gradually.[5]

1.2 Scope of Secondary Liability

Secondary liability is understood as a specific form of liability of persons (hereinafter named 'indirect infringers') who are neither direct infringers nor participants in direct infringements according to Section 830(1), 1st sentence, (2) of the BGB.[6] Not only indirect infringers, but also direct infringers could be liable according to the principle of secondary liability. This would be the case if the latter did not fully meet all elements required in specific liability provisions for direct infringers.[7] In result, any person who could be subject to cease and desist claims could be liable according to the secondary liability principles.[8] This kind of liability extends to all persons who contribute to a direct infringement of a third party, without requiring any intent or other kind of fault to do so. This contribution could include any support of a third party infringement through a technical or organizational environment the direct infringer could benefit from. According to the BGH, it is not relevant in this context that such a person contributing to an infringement could neither held liable as a direct infringer nor as a participant in the direct infringement. Those facts could only have an impact on the scope of the cease and desist claims.[9]

The notion of secondary liability was developed to effectuate legal protection against infringements in cases in which it was not possible to identify or legally attack the direct infringer behind the indirect infringer. In addition, in most cases it is the indirect infringer who bears the risk of increasing the danger of infringement because of his organization or control of technical means. This makes the indirect infringer a preferable addressee to effectively stop the infringement or its dissemination. Hence, secondary liability technically constitutes an extension of liability to persons who did not directly infringe other person's rights.[10]

Secondary liability is a liability solely for unlawful conduct. The only claims that can be based on secondary liability are claims for prospective relief, *i.e.* cease

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4 German Federal Supreme Court (Bundesgerichtshof, BGH), September 21, 1989, I ZR 27/88, 1990 GRUR 463, 464 – *Firmenrufnummer*; TEPLITZKY, Wettbewerbsrechtliche Ansprüche und Verfahren, Unterlassung – Beseitigung – Schadenersatz, Anspruchsdurchsetzung und Anspruchsabwehr, Cap. 14 notes 4 *et seq.* with further references (9th ed. 2007).

5 With respect to secondary liability for unfair competition acts of third parties, *see* FRITZSCHE, in: HEERMANN/HIRSCH (eds.), Münchener Kommentar zum Lauterkeitsrecht, Vol. 2, Section 8 of the German Law against Unfair Competition ('Gesetz gegen den unlauteren Wettbewerb', 'UWG'), note 258 with further references (1st ed. 2006).

6 German Federal Supreme Court (Bundesgerichtshof, BGH) – *Grundig-Reporter*, *supra* note 2, at 500; May 29, 1969, Ib ZR 4/63, 1965 GRUR 104, 105 – *Personalausweise*; *Meißner Dekor I*, *supra* note 1, at 619.

7 AHRENS, *supra* note 3, at 1281.

8 *See* FRITZSCHE, *supra* note 5, Section 8 of UWG, notes 259 and 262.

9 German Federal Supreme Court (Bundesgerichtshof, BGH) – *Pertussin II*, *supra* note 2, at 357.

10 INGERL/ROHNKE, Markengesetz, before Section 14-19, note 29 (2nd ed. 2003).

and desist claims.[11] Therefore, it is not possible to claim against an indirect infringer for damages unless he was acting at fault. As mentioned above, unlike criminal and tort claims, secondary liability claims are not dependent on the extent of fault. With respect to information request claims, those were not enforceable in the past if solely based on secondary liability. However, the German Government has now implemented such claims against indirect infringers of intellectual property rights, with the Act of Parliament of April 11, 2008, called 'Law to improve the enforceability of intellectual property rights'.[12]

With respect to secondary liability's requirements, courts and scholars distinguished in the past between intellectual property right infringements and infringements due to unfair competition activities.[13] It seems that at least the BGH has given up this distinction. In one of its latest decisions, it no longer emphasized this distinction, and indeed did not even mention it at all.[14] From a dogmatic point of view, it can be argued that there is no need for such a distinction. If unlawful conduct not comprising any intellectual property infringements was treated according to tort principles, *i.e.* according to Section 830(2) of the BGB, it would be unduly difficult to establish a case of secondary liability. Tort claims generally require a subjective component, such as intent, and it would be almost impossible to reach out for indirect infringers if a claimant were required to substantiate their intent or negligence. Even though intellectual property claims and those based on the law against unfair competition have generally different statutory requirements, there is no justification to distinguish between them when it comes to the liability of a person contributing to an infringement without being the direct infringer. Dogmatically, the only relevant factor for applying secondary liability is the unlawful conduct as such, independent of which substantial area of law is at issue.[15]

1.3 Requirements

Since the notion of secondary liability is an extension of the general liability provisions, it is only possible to assert claims against an indirect infringer if he:

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[11] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Meißner Dekor I*, *supra* note 1, at 619; April 6, 2000, I ZR 67/98, 2001 GRUR 82, 83 – *Neu in Bielefeld I*.

[12] Gesetz zur Verbesserung der Durchsetzung von Rechten des Geistigen Eigentums, BT-Drucks. 16/5048 of April 20, 2008.

[13] *See* KÖHLER in: HEFERMEHL/KÖHLER/BORNKAMM, Wettbewerbsrecht, Section 8 notes 2.12 *et seq.* (26th ed. 2008), concluded from decisions of the BGH where the court expressed some reservation regarding the applicability of secondary liability to cases of mere unlawful conduct without any infringement of intellectual property rights; *i.e.* in: German Federal Supreme Court (Bundesgerichtshof, BGH), May 15, 2003, I ZR 292/00, 2003 GRUR 969, 970 – *Ausschreibung von Vermessungsleistungen*; March 11, 2004, I ZR 304/01, 2004 GRUR 860, 864 – *Internet-Versteigerung I*.

[14] German Federal Supreme Court (Bundesgerichtshof, BGH), June 14, 2006, I ZR 249/03, 2006 GRUR 957, 957 – *Stadt Geldern*; April 19, 2007, I ZR 35/04, 2007 GRUR 708, 711 – *Internet-Versteigerung II*.

[15] AHRENS, *supra* note 3, at 1286 *et seq.*

(a) deliberately and adequately contributed to the causation or maintenance of a legal violation; and
(b) thereby violated reasonable duties to review which depend on the personal responsibility of the direct infringer in addition to his function and the assigned task.

1.3.1 Contribution to a Legal Violation

Generally, in order to trigger secondary liability claims, there must be a direct infringement committed by a third party.[16] The only exception in this regard is set forth in Section 10 of the German Patent Act ('Patentgesetz'), which does not require a direct patent infringement for constituting an indirect patent infringement. This provision provides a claim against the indirect patent infringer as soon as the patent in question is threatened with direct infringement.[17]

According to the previous jurisdiction of the BGH, an indirect infringer was liable if he in any way deliberately, adequately, and causally contributed to the advancement of the direct infringement, including by taking advantage of an independently acting third party, and if the indirect infringer had either the legal or the factual possibility to exert influence on the infringing conduct of the direct infringer.[18] Along with the latest secondary liability decisions, criticism arose because the above-mentioned requirements led to an excess of liability – notwithstanding the fact that the scope of liability was limited through the additional requirement that any means to prevent the infringing acts must be reasonable.[19]

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[16] German Federal Supreme Court (Bundesgerichtshof, BGH), October 10, 1996, I ZR 129/96, 1997 GRUR 313, 315 – *Architektenwettbewerb*; November 28, 1996, I ZR 184/94, 1997 GRUR 473, 475 – *Versierter Ansprechpartner*; November 10, 1999, I ZR 121/97, 2000 GRUR 613, 615 – *Klinik Sanssouci*; October 4, 1990, I ZR 299/88, 1991 GRUR 540, 541 – *Gebührenausschreibung*; *Ausschreibung von Vermessungsleistungen*, *supra* note 13, at 970.

[17] German Federal Supreme Court (Bundesgerichtshof, BGH), September 24, 1991, X ZR 37/99, 1992 GRUR 40, 41 – *Beheizbarer Atemluftschlauch*; January 9, 2007, X ZR 173/02, 2007 GRUR 679, 684 *et seq.* – *Haubenstretchautomat*.

[18] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Pertussin II*, *supra* note 2, at 353; July 6, 1954, I ZR 38/53, 1955 GRUR 97, 99 – *Constanze II*; December 5, 1975, I ZR 122/74, 1976 GRUR 256, 258 – *Rechenscheibe*; July 7, 1988, I ZR 36/87, 1988 GRUR 829, 830 – *Verkaufsfahrten II*; *Firmenrufnummer*, *supra* note 4, at 464; October 12, 1989, I ZR 29/88, 1990 GRUR 373, 374 – *Schönheits-Chriurgie*; *Gebührenausschreibung*, *supra* note 16, at 541; April 14, 1994, I ZR 12/92, 1996 GRUR 905, 907 – *GmbH-Werbung für ambulante ärztliche Leistungen*; *Architektenwettbewerb*, *supra* note 16, at 315; October 15, 1998, I ZR 120/96, 1999 GRUR 418, 419 – *Möbelklassiker*; May 17, 2001, I ZR 251/99, 2001 GRUR 1038, 1039 – *ambiente.de*; February 21, 2002, I ZR 281/99, 2002 GRUR 902, 904 – *Vanity-Nummer*; April 1, 2004, I ZR 317/01, 2004 GRUR 693, 695 – *Schöner Wetten*; *Internet-Versteigerung I supra* note 13, at 864; February 9, 2006, I ZR 124/03, 2006 GRUR 875, 877 – *Rechtsanwalts-Ranglisten*.

[19] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Rechtsanwalts-Ranglisten*, *supra* note 18, at 877.

1.3.2 Breach of Reasonable Duty to Review

Furthermore, secondary liability requires a breach of duty. The BGH specified this requirement in its decision *Architektenwettbewerb*.[20] The court held in this decision that the indirect infringer must be able to identify the specific infringement condition in order to become liable according to secondary liability principles. However, the court added that, if an indirect infringer did not identify the infringing condition caused by a third party because he violated his reasonable duty to review, he should nonetheless become liable.[21] The required duty to review is not limited to the review of unlawful conduct as such after being notified about it; rather, under certain conditions it also includes a duty to take measures to minimize or exclude unlawful acts of a similar type in the future.[22] This could, for example, include the duty of a service provider to request and store certain information to identify possible direct infringers.[23] The definite scope of the indirect infringer's reasonable duty to review must be decided on a case-by-case basis.[24]

As a further specification of the duty to review, the BGH held in its decision *Räumschild* that an indirect infringer who could have prevented an infringement should only be liable if the act of prevention could have been expected, based on his causal contribution and his authority resulting from his function.[25]

Besides establishing those requirements, courts have also established restrictions on this kind of liability. If the unlawful conduct of the indirect infringer is not substantially increasing the risk of infringement through a direct infringer, there should be no room for secondary liability.[26] For example, there is no duty to review the target webpage of a hyperlink, if (a) this website is publicly available and therefore accessible either directly or through other sources, (b) it cannot be excluded

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[20] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Architektenwettbewerb*, *supra* note 16, at 316; *see also Ausschreibung von Vermessungsleistungen*, *supra* note 13, at 971.

[21] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Architektenwettbewerb*, *supra* note 16, at 315; *Internet-Versteigerung I*, *supra* note 13, at 864; *Schöner Wetten*, *supra* note 18, at 695; *Rechtsanwalts-Ranglisten*, *supra* note 18, at 877; *Stadt Geldern*, *supra* note 14, at 958; *Internet-Versteigerung II*, *supra* note 14, at 711.

[22] AHRENS, *supra* note 3, at 1287; German Federal Supreme Court (Bundesgerichtshof, BGH), April 30, 2008, I ZR 73/05, 2008 GRUR 702, 704 *et seq.* – *Internet-Versteigerung III*; *Jugendgefährdende Medien bei eBay*, *supra* note 1, at 894 *et seq.* (para. 43 *et seq.*); Cologne Court of Appeals (Oberlandesgericht, OLG), March 18, 2005, 6 U 12/01, 2005 Multimedia und Recht, Zeitschrift- für Informations-, Telekommunikations- und Medienrecht (MMR) 545, 546 – *ricardo.de II*.

[23] Düsseldorf Court of Appeals (Oberlandesgericht, OLG), April 26, 2006, I-15 U 180/05, 2006 MMR 553, 555 *et seq.* (regarding the registration of members of an online bulletin board to facilitate the prosecution of personal rights' violations).

[24] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Schöner Wetten*, *supra* note 18, at 695 *et seq.*

[25] German Federal Supreme Court (Bundesgerichtshof, BGH), May 18, 1999, X ZR 156/97, 1999 GRUR 977, 979 – *Räumschild*; *dissenting*: INGERL/ROHNKE, *supra* note 10, before Section 14-19, note 22.

[26] German Federal Supreme Court (Bundesgerichtshof, BGH), July 17, 2003, I ZR 259/00, 2003 GRUR 958, 961 – *Paperboy*: in this decision, the BGH dismissed the liability for linking to websites which could be otherwise accessed without any further restrictions.

that the content of this website maintained by a third party is compliant with German laws, and (c) the author of the editorial article that contained the hyperlink could claim freedom of opinion or freedom of press according to Art. 5(1) of the German Constitution ('Grundgesetz', 'GG').

In this specific case, the alleged indirect infringer had no duty to review the third party's website before setting up the hyperlink.[27] The alleged indirect infringer did not have the professional skills to evaluate the legality of the content to which he was linking. The court found that in such a fact constellation, it is not necessary to expand the personal liability to an indirect infringer. There are, however, courts that advance a different view. For example, the Appeal Court of Jena held that a bank which provided a bank account to an organizer of illegal gambling was liable according to secondary liability principles, because the bank thereby supported the unlawful conduct of the organizer.[28] It is at least disputable whether the granting of a bank account had a qualitative impact on the wrongdoing of the offender, and more importantly, whether it was obvious to the bank that the account was used for this specific business purpose. This question also arises in cases where bank accounts provided to private persons are misused for so-called 'phishing'-activities.[29]

Although the jurisprudence dealing with the scope of reasonable duties of indirect infringers is not always unanimous, there is one common limit: according to prevailing case law, a duty to review should be deemed unreasonable if it would unduly impair the business of the alleged indirect infringer. For example, an online auction platform is generally not obliged to review every offer before a customer is putting it on its platform for sale.[30] In this regard, similar liability standards already established for press and publishing companies apply here as well. The latter shall only be liable on an exceptional basis for transporting display texts of third parties, if those texts contained substantially illegitimate content that was readily identifiable.[31]

However, the BGH has further developed its jurisprudence in its latest decision *Internet-Versteigerung III*.[32] In its previous decisions, an indirect infringer was only

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[27] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Schöner Wetten*, *supra* note 18, at 695 *et seq*.

[28] Jena Court of Appeals (Oberlandesgericht, OLG), November 2, 2005, 2 U 418/05, 2006 Gewerblicher Rechtschutz und Urheberrecht, Rechtsprechungs-Report (GRUR-RR) 134, 136 – *sportwetten.de*.

[29] 'Phishing' is defined as an attempt to criminally and fraudulently acquire sensitive information, such as usernames, passwords and credit card details, by masquerading as a trustworthy entity in an electronic communication, *see* WIKIPEDIA, available under < http://en.wikipedia.org/wiki/Phishing>; District Court of Cologne, December 5, 2007, 9 S 195/07, 2008 MMR 259 – *Haftung bei Phishing-Attacken* (regarding the liability of the owner of a bank account used for transferring money received through phishing activities).

[30] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Internet-Versteigerung I*, *supra* note 13, at 864; *Internet Versteigerung II*, *supra* note 21, at 712 *et seq*.; *Jugendgefährdende Schriften bei eBay*, *supra* note 1, at 893 *et seq*.

[31] German Federal Supreme Court (Bundesgerichtshof, BGH), January 26, 2006, I ZR 121/03, 2006 GRUR 429, 431 – *Schlank-Kapseln*; *Stadt Geldern*, *supra* note 14, at 958.

liable if the afore-mentioned requirements were met. In particular, if there were no duty to review, the liability of an indirect infringer commenced only upon notice of a (direct) third party infringement. According to the BGH in *Internet-Versteigerung III*, an indirect infringer shall also be liable if he does not reasonably provide for precautions against future infringements of the same kind that were previously clearly noticeable.[33]

2. Secondary Liability of ISPs

2.1 General Remarks

In the past, most cases of secondary liability dealt with the press, publishers,[34] mail service providers,[35] or transport companies of import and transit goods.[36] When the Internet was created, new service providers emerged and thereby new fields of secondary liability. For certain of those service providers, the scope of liability is already specified in corresponding statutory laws or in case law. This include ISPs providing telecommunications media services,[37] including search engines for publishing advertisements,[38] online auctions, or online bulletin board providers;[39] registries of Internet domain names;[40] owners of communication access points;[41]

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[32] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Internet-Versteigerung III*, *supra* note 22 at 706.

[33] See press release no. 87/2008 regarding the BGH decision *Internet-Versteigerung III*, available under <http://www.bundesgerichtshof.de>.

[34] German Federal Supreme Court (Bundesgerichtshof, BGH), December 6, 2001, I ZR 284/00, 2002 GRUR 360, 366 – *H.I.V. POSITIVE II*; INGERL/ROHNKE, *supra* note 10, Before Section 14-19 note 32 with further references.

[35] Hamburg Court of Appeals (Oberlandesgericht, OLG), November 9, 2007, 3 U 85/05, 2007 MMR 340 (liability of Deutsche Post AG for direct mailings).

[36] Berlin Court of Appeals (Oberlandesgericht, OLG), November 7, 2000, 5 U 6923/99, 2001 GRUR-RR 159 – *EURO-Paletten*.

[37] Laid-out in Chapter 3 (Section 7 to Section 10) of the German Telecommunications Media Act ('Telemediengesetz', 'TMG'); *see also* ZIMMERMANN/STENDER-VORWACHS in: SPINDLER/SCHUSTER (eds.), Recht der elektronischen Medien, Before Section 7 *et seq.* of the TMG, notes 57 *et seq.* (1st ed. 2008) with further references.

[38] Braunschweig Court of Appeals (Oberlandesgericht, OLG), December 11, 2006, 2 W 177/06, 2007 GRUR-RR 71 – *Google Adwords*; Hamburg Court of Appeals (Oberlandesgericht, OLG), May 4, 2006, 2007 GRUR 241 – *Google Adwords*; Berlin Court of Appeals (Oberlandesgericht, OLG), August 18, 2006, 5 W 190/06, 2007 GRUR-RR 68 – *Keyword Advertising*; Hamburg Court of Appeals (Oberlandesgericht, OLG), February 20, 2007, 7 U 126/06, 2007 MMR 315 – *Snippets*.

[39] German Federal Supreme Court (Bundesgerichtshof, BGH), March 27, 2007, VI ZR 101/06, 2007 GRUR 724 – *Rumtrauben*; Hamburg District Court (Landgericht, LG), April 27, 2007, 324 O 600/06, 2007 MMR 450 – *Haftung für Foreneinträge*; Munich District Court I (Landgericht, LG), April 19, 2007, 7 O 3950/07, 2007 MMR 453 – *UseNet*.

[40] German Federal Supreme Court (Bundesgerichtshof, BGH) May 17, 2001, I ZR 251/99 2001 GRUR 1038 – *Maßstäbe für Prüfungspflichten der DENIC*.

[41] *See* FRITZSCHE, *supra* note 5, Section 8 of the UWG, note 268.

providers of online archives;[42] providers of peer-to-peer software which enables the exchange of works protected by copyright;[43] and providers of an Internet access used for unlawful downloads by third parties.[44] However, German courts have established neither uniform nor consistent requirements regarding secondary liability of those ISPs.

2.2 Legal Framework

For some of the afore-mentioned online services, there are special liability rules. For example, Section 7 (1) of the German Telecommunications Media Act ('Telemediengesetz', 'TMG') states that ISPs shall only be liable for their own information that they provide to third parties according to general provisions. According to Section 2 No. 2 of the TMG, operators of online bulletin boards or newsgroup hosts are considered to be telecommunications media service providers. As to information that comes from third parties and therefore cannot be considered as a service provider's 'own'information, the liability of that service provider is rather limited. According to Section 10 of the TMG, service providers shall only be liable for information of third parties if (1) they had knowledge of unlawful acts and, in case of damage claims, facts about unlawful acts or information thereof became obvious to them, or (2) if they did not immediately react to delete or block this information upon having received knowledge of those acts. As mentioned before, this privilege concerning third party information does only apply to damage claims, not to mere claims for injunctive relief, such as cease and desist claims. Therefore, such claims may be made against ISPs according to secondary liability principles, even if they do not have any knowledge about the unlawful information deriving from third parties.

2.3 Case Law Dealing with the Secondary Liability of ISPs

With respect to the secondary liability of ISPs, courts apply the same principles as for indirect infringers in the 'offline'-world. However, due to the digital environ-

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[42] Frankfurt Court of Appeals (Oberlandesgericht, OLG), September 20, 2006, 16 W 55/06, 2007 Neu Juristische Wochenschrift (NJW) 1366 – *Pressearchiv*; September 20, 2006, 16 W 56/06, 2007 NJW-Rechtsprechungsreport Zivilrecht (NJW-RR) 988 – *Straftäter-Berichterstattung*; Frankenthal District Court (Landgericht, LG), May 16, 2006, 6 O 541/05, 2006 MMR 689 – *Presseartikel-Suchdienst*.

[43] Hamburg Court of Appeals (Oberlandesgericht, OLG), February 8, 2006, 5 U 78/05, 2006 NJW-RR 1054 – *Cybersky*; *see also MGM v. Grokster*, 125 S.Ct. 2764 (2005); *A&M Records v. Napster*, 239 F.3d 1004 (9th Cir. 2001); *In re Aimster Copyright Litig.*, 334 F.3d643 (7th Cir. 2003).

[44] Hamburg District Court (Landgericht, LG), April 21, 2006, 308 O 139/06, 2007 MMR 131 – *Überlassung des Internetzugangs an minderjährige Kinder*; Mannheim District Court (Landgericht, LG), September 29, 2006, 7 O 76/06, 2007 MMR 267 – *Überlassung des Internetzugangs an erwachsene Kinder I*; January 30, 2007, 2 O 71/06, 2007 MMR 459 – *Überlassung des Internetzugangs an erwachsene Kinder II*; ERNST/SEICHTER, Die Störerhaftung des Inhabers eines Internetzugangs, 2007 Zeitschrift für Urheber- und Medienrecht (ZUM) 513, 514 *et seq*.

ment and to technical possibilities of both preventing and commiting infringements, courts have refined and further developed the requirements for making secondary liability claims – not only against ISPs. For example, in its decision *Jugendgefährdende Medien bei eBay*, the BGH stated that in order to determine the scope of duty to review, it will be necessary to consider the significance of the violated property that should be protected on the one side, and the function and significance of the indirect infringer (here: ISP) on the other. In this case, the BGH concluded that because of the importance of the protection of minors, protection measures that are deemed sufficient to prevent trademark infringements might not be sufficient to prevent the dissemination of works that are not suitable for minors.[45]

In this context, it should be considered that prior research and other review duties are unreasonable if they lead to an impairment of communication means and a *de facto* censorship executed by an ISP following such duties. An ISP will not easily be able to evaluate the truth of claims about violations of personal rights by means of false allegations or defamation and the like. It is not desirable to put ISPs in a position in which they tend to prevent possible lawful offers, statements, or conduct of third parties, and thereby become subject to damage claims asserted by the alleged direct infringer who turns out to be not an infringer. This issue has already been considered with respect to the liability of the press companies.[46]

In its decision *heise.de*, the Court of Appeal of Hamburg required a so-called online bulletin board provider to control third parties' contributions to his bulletin board before their publication online – in particular, contributions regarding topics or prior commentaries to those topics that contained illegal content in the past and that are likely to induce further comments that could also be considered unlawful. This could be foreseen if, for example, a user of the bulletin board criticizes the allegedly deceptive business acts of a company.[47] This decision of the Court of Appeal of Hamburg was highly criticized as restricting unduly the freedom of press, as well as putting an unreasonable burden on the provider of such services.[48] Other courts have ruled exactly the opposite way, requiring that bulletin board providers take precautions only upon learning of infringing acts.[49] With respect to the provider of a bulletin board for pictures, the District Court of Hamburg held that the

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[45] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Jugendgefährdende Medien bei eBay*, *supra* note 1, at 892 *et seq.*; in this context, *see also* German Federal Supreme Court (Bundesgerichtshof, BGH), October 18, 2007, I ZR 102/05, 2008 GRUR 534 *et seq.* – *ueber18.de*.

[46] *See* AHRENS in: GLOY/LOSCHELDER, Wettbewerbsrecht, Section 73 note 73 (3rd ed. 2005).

[47] Hamburg Court of Appeals (Oberlandesgericht, OLG), August 22, 2006, 7 U 50/06, 2006 MMR 744 – *heise.de*.

[48] HOFFMANN, Die Entwicklung des Internet-Rechts bis Mitte 2007, 2007 NJW 2594, 2596 *et seq.*; *see also* press release of the German Society of Journalists (DJV), DJV kritisiert Urteil des LG Hamburg: Medien können nicht für Internetforen haften, December 8, 2005, published under <beck-online.de>, becklink 163491.

[49] Koblenz Court of Appeals (Oberlandesgericht, OLG)), July 12, 2007, 2 U 862/07, 2007 BeckRS, no. 15339; Düsseldorf District Court (Landgericht, LG), June 27, 2007, 12 O 343/06, 2007 MIR Dok. 270; District Court of Berlin, May 31, 2007, 27 S 2/07, 2007 MMR 668 – *meinprof.de*;

provider should be liable even without having knowledge of copyright infringements committed by its users, since the probability of such infringements would be high and therefore foreseeable.[50]

In particular with respect to infringements committed online, the implementation of filter software has been discussed as a means of precaution. While this kind of solution could be technically feasible for trademark or copyright infringements[51] concerning specific kinds of services, it is not feasible for other kinds of infringements, *e.g.* of personal rights. The nature of some services even require ISPs to review upfront all content provided by third parties.[52] Other ISPs, such as so-called cache-providers, are not obliged to conduct reviews prior to notice of a possible infringement.[53]

All in all, it is currently hard to predict for ISPs what kind of precautions are necessary to avoid secondary liability claims against them. Consequently, some search engines have already refused to publish Google-Ads of Usenet-services for fear of becoming subject to secondary liability claims.[54]

3. Comments

The above-mentioned cases addressing the secondary liability of ISPs showed that claimants preferred taking action against the indirect infringer rather than against the direct infringer. Where the direct infringer is not within legal reach, this tactical approach is necessary in order to guarantee an effective remedy, which constitutes a constitutional right according to Art. 2(2) in connection with Art. 20(3) of the GG.[55] However, this cannot become a standard procedure in cases where an effective remedy could be reached by proceeding against the direct infringer, but for other reasons only the indirect infringer is subject to legal action. Only if the nature of an infringement requires attacking the indirect infringer, *i.e.* the ISP, in order to stop the infringing act immediately, it would be permissible to proceed against the indirect infringer despite the fact that also the direct infringer is known to the person whose rights are infringed.[56] Because of the structure of Internet networks, in par-

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[50] District Court of Hamburg (Landgericht, LG), August 24, 2007, 308 O 245/07, 2007 MMR 726 – *Haftung des Forenbetreibers*.

[51] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Internet-Versteigerung I*, *supra* note 13, at 864; *dissenting*: Düsseldorf District Court (Landgericht, LG), November 28, 2007, 2a O 176/07, 2008 GRUR-RR 122 – *Domain-Parking* (regarding the duty to review of a domain parking platform, arguing that a review of domains for possible trademark infringements is technically not achievable).

[52] Hamburg Court of Appeals (Oberlandesgericht, OLG), September 8, 2005, 3 U 49/05, 2006 MMR 37 – *Werbung für ausländisches Glückspiel*.

[53] Düsseldorf District Court (Landgericht,LG), January 15, 2008, I-20 U 95/07, Beck-Dok. 251940 – *Cache Provider*; *see also* REDEKER, IT-Recht, notes 1094 *et seq.* (.4th ed. 2007).

[54] This was basis of the case trialed before the District Court of Hamburg (Landgericht, LG Hamburg), February 4, 2008, 315 O 870/07.

[55] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Pertussin II*, *supra* note 2, at 353 *et seq.*

[56] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Rumtrauben*, *supra* note 39, at 726.

ticular through the innumerable servers mirroring the content of websites worldwide, it is no longer sufficient that the direct infringer takes off the unlawful content from his website. There will still be copies thereof available through search engines and other mirror sites that are updated at a later stage. Therefore, there could be cases where attacking the ISP as an indirect infringer is probably the only effective solution to stop an infringement fast. However, in cases where the subject matter is an alleged violation through the dissemination of a third party statement, the secondary liability of an ISP, *i.e.* the provider of the online bulletin board, should be questionable if it is also possible to take effective action against the direct infringer.[57]

In order to facilitate proceedings against the direct infringer, the German government passed an amendment to substantive intellectual property laws that enables an owner of intellectual property rights to request information from ISPs or from a telecommunication service provider. Obtaining such information makes it possible to bring an action directly against the direct infringer.[58] However, these information request claims are provided for only in the respective intellectual property laws. With respect to acts of unfair competition, information request claims can be based only on the *bona fide* rule of Section 242 of the BGB.[59] Although this kind of claim was originally designed to obtain information from persons directly violating the UWG, there is no reason not to apply this tradition also to secondary liability situations involving violations of unfair competition law. Since such claims are now codified in the statutory intellectual property laws[60], an analogous application to unfair competition law situations would fit again into the concept of effectuating legal remedies against all kind of infringements.

The different treatment of ISPs by courts depending on the services they provided showed that the reasonableness of a duty to review as a requirement for secondary liability is a flexible criterion.[61] It ranges from active efforts to detect unlawful conduct in advance to passive efforts, considering the time of notice and the reaction based thereupon. Additional factors for this differentiation are the function and the task definition of the person claimed to be an indirect infringer, as well as the grade of personal responsibility of the direct infringer.[62] Therefore, a domain name registry that is responsible for organizing and maintaining a cost-effective system for registering Internet domain names is subject to a less strict duty to

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[57] AHRENS, *supra* note 3, at 1289.

[58] Gesetz zur Verbesserung der Durchsetzung von Rechten des Geistigen Eigentums, *supra*, note 12; *cp.* Munich Court of Appeals (Oberlandesgericht, OLG), September 21, 2006, 29 U 2119/06, 2007 GRUR 419 - *Lateinlehrerbuch*.

[59] FRITZSCHE, *supra* note 5, Section 9 of UWG, notes 139 *et seq.*

[60] *See* Gesetz zur Verbesserung der Durchsetzung von Rechten des Geistigen Eigentums, *supra*, note 12, at 5 *et seq.*

[61] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Schöner Wetten*, *supra* note 18, at 695.

[62] *Id.*; German Federal Supreme Court (Bundesgerichtshof, BGH), November 3, 1994, I ZR 122/92, 1995 GRUR 62, 64 *et seq.* – *Betonhalterung*; *ambiente.de*, *supra* note 18, at 1040; *Ausschreibung von Vermessungsleistungen*, *supra* note 13, at 970 *et seq.*

review than a provider of peer-to-peer software exclusively used for the illegal exchange of copyrighted works. While the first institution acts in the public interest and therefore should not be unreasonably hindered by a requirement to conduct prior research for possible trademark or name infringements[63], the latter does not deserve such deference.[64]

4. Conclusion

The German Government has already realized that an extensive affirmation of secondary liability for ISPs, in particular for online bulletin boards, could have a negative impact on the freedom of press and speech. Yet there is still no indication that the scope of liability for online publications, in particular the requirement to monitor online platforms, is going to be determined more precisely in the statutory laws, *i.e.* the TMG.[65] Given that in most cases it is impossible for online host or search engine providers to review every single third party entry, in particular manually,[66] the burden of liability, as decided by some courts, weighs hard on those who did not originate any unlawful acts. However, since technology for detecting unlawful acts, such as trademark or copyright infringements, or repeated defamation and the like, is rapidly improving, this could have an impact on the scope of liability for ISPs, such as online auction or forum platforms.[67] Besides, the BGH ruled in *Internet-Versteigerung III*[68] that all liability privileges laid out in the TMG relate only to criminal liability and damage claims, not to cease and desist claims.

As now confirmed in *Internet-Versteigerung III*, 'notice and take down' procedures as practiced by the online platform provider eBay are only a sufficient solution to address the problem of infringing goods offered over its auction platform in cases where the identical right has not been infringed before. Such procedures will no longer be held sufficient for obvious infringements of the same kind as those of which the indirect infringer was put on notice before, as long as business operations will not be impaired through appropriate precautions.

While some courts manage to stay abreast of the aforementioned changes, it is ultimately the legislature's responsibility to provide measures against unlawful acts without impairing new services and means of communication. At the same time, ISPs as potential indirect infringers should not just sit back and wait for statutes or

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[63] German Federal Supreme Court (Bundesgerichtshof, BGH), February 19, 2004, I ZR 82/01, 2004 GRUR 619, 620 *et seq.* – *kurt-biedenkopf.de*; *see also* LEISTNER, Von 'Grundig-Reporter(n) zu Paperboy(s)' – Entwicklungsperspektiven der Verantwortlichkeit im Urheberrecht, 2006 GRUR 801, 805 *et seq.*

[64] AHRENS, *supra* note 3, at 1288.

[65] *See* KREMPL, FDP mahnt rasche Reform der Haftungsregelungen für Blogger an, news article published by heise online on Dec. 10, 2007, available at <http://www.heise.de/newsticker/meldung/100351>.

[66] Munich Court of Appeals (Oberlandesgericht, OLG), December 21, 2006, 29 U 4407/06, 2007 GRUR-RR 393 – *Parfümfälschung*.

[67] *See* also: *Perfect 10 Inc. v. Amazon.com, Inc et al.*, 06-55405 (9th Cir. May 16, 2007).

[68] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Internet-Versteigerung III*, *supra* note 22 at 705.

case law to to swing in their favor. The same goes for owners of intellectual property and personal rights. The responsibility for maintaining a lawful online environment lies not only on the legislature and the judiciary, but also on the ISPs and the owners of intellectual property and personal rights. The latter are able to protect their works, in particular digital works, with the use of technical means. With respect to technical precautions to prevent certain forms of infringement committed over platforms provided by ISPs, it is also up to the right owner to make technical arrangements to prevent such infringements to a certain extent. For example, it is technically possible to prevent graphic files from being copied from a website and to prevent links directly to internal pages of a website that bypass the home page.[69] It is also a standard procedure to secure WLAN-networks or home computers against unauthorized intrusions or viruses. ISPs might investigate new means or develop further precautions to protect third party rights – and their businesses. While this task was generally thought to be impossible in the past, this is no longer the case, at least regarding trademark rights or other data kept in registries which could be used for a filter and whistle-blowing mechanisms, together with corresponding software.

European and German legislators have already amended intellectual property laws to provide, among other things, for new means to track down the direct infringer. However, there is still room for further amendments to meet the liability principles and increase the predictability of legal decisions dealing with this kind of liability for Internet-based activities. In the meantime, it is up to the courts to specify the appropriate review and precaution duties.

Finally, coming back to the initial question raised in the title: there is no need for a new liability standard. However, it might be necessary to a certain extent to adjust the requirements for secondary liability to take account of the technical and legal means available to prevent infringements, and, with regard to new services emerging from digital networks, to maintain a high level of effective remedy against infringements. Therefore, the development of technology will not necessarily lead to a new form of liability, only to new legal and technical means that need to be considered, and possibly to a shift of responsibility.

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[69] German Federal Supreme Court (Bundesgerichtshof, BGH) – *Paperboy*, *supra* note 26, at 961.

Can China be Forced to Enforce IP Rights?

Peter Ganea

1. Introduction

Joseph Straus is one of the world's most renowned patent experts, but his expertise is by no means confined to patents. *Inter alia*, he actively participates in the political debate around IP in the context of globalization and economic development. Due to its sheer size, vast population and rapid industrializiation, the People's Republic of China is one of the most interesting and problematic countries in this respect. Holding honorary professorships with two renowned Chinese universities, Joseph Straus is a profound connoisseur of the country, not only from a legal but also from a social and economic perspective. This article is dedicated to one of the most debated issues in this context, namely the enforcement situation in China and the often-heard accusation that the People's Republic does not take its protection obligations under TRIPS seriously enough.

Rampant copyright piracy and counterfeiting during the past two decades has earned China the reputation of a safe harbor for IP infringers. In the 1990s, copyright piracy reached levels which prompted the US as the world's main exporter of copyright-sensitive entertainment products and software to threaten China with trade sanctions, and two times a trade war could only be averted the day before the punitive tariffs announced by the US would have entered in force. Each time, China promised to improve the protection regime, but what followed each agreement were rather short-term campaigns against infringers. The US complained that after a while, pirates could re-establish factories and re-launch illegal production of pirated reproductions.[1] According to the USTR, the situation remained largely unchanged also after China's accession to the WTO in 2001. The reports on China continue to occupy the biggest part of the USTR's annual Priority Watch Lists of non-obedient countries in terms of IP protection.[2] In spring 2007, the US filed two complaints against China before the WTO panel.[3] One is directly related to the problem of rampant copyright and trademark infringement, the other indirectly related in that it accuses China of restricting access to the US film industry to the cultural market in China. The absence of legitimate copies would invite pirates to meet the domestic demand. China counters such accusations with reference to the efforts already spent

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[1] More details in YU, From Pirates to Partners: Protecting Intellectual Property in China in the Twenty-First Century, 50 Am.U.L.Rev. 131–243 (2000).

[2] Section 301 Reports, available at <http://www.ustr.gov/Trade_Sectors/Intellectual_Property/Section_Index.html> (as of April 2008)

[3] Summary available at <http://www.ustr.gov/assets/Document_Library/Fact_Sheets/2007/asset_upload_file908_11061.pdf> (as of April 2008); full text available at <http://www.wto.org/english/tratop_e/trips_e/intel5_e.htm> (as of April 2008).

and argues that counterfeiting and piracy would not form a singular Chinese problem but must be regarded as a worldwide phenomenon.[4]

Whereas the US is mainly concerned about copyright piracy, Europe and other developed countries suffer from counterfeiting and imitation of all kinds of patented or trade secret protected technologies. Rampant infringement of patents and know-how motivated, for instance, the German Asia Pacific Committee, an organization jointly established by the German Federation of Industries (BDI), the Association of German Chambers of Industry and Commerce (DIHK) and other business federations, to issue 'Guidelines for Entrepreneurs: Technology Transfer to China', which, *inter alia*, advises German firms and investors to conceal their most advanced technical know-how in technology cooperations with Chinese partners.[5] In return, the Chinese accuse European and American enterprises of abusing their IP to the detriment of consumers and of technological development.[6] In sum, the present relations between China and the industrialized countries in the IP area are largely characterized by distrust and dissent.

2. The US Complaints Against China

The WTO complaints address the following shortcomings in copyright and trademark enforcement:

a) Customs rules regarding treatment of seized goods
According to the Provisions on Customs Protection of Intellectual Property Rights of 2003 and their Implementing Regulations, customs are allowed to put seized infringing goods back in commercial channels after removing the infringing features, *e.g.* fake labels. Only if the infringing features cannot be removed must the goods be disposed of. This treatment of infringing goods would run counter Articles 46 and 51 of the TRIPS Agreement.

b) Treatment of works which are under censorship review
Before a work can be published in China, it must be approved for domestic publication and distribution. Before such approval, it is prohibited from publication and distribution in China, thus falling under Article 4 of the Copyright Act

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[4] Right after the file of the US WTO complaints on April 10, 2007, high representatives of the Ministry of Commerce (MOFCOM), the State Administration of Industry and Commerce (SAIC), the National Copyright Administration of China (NCAC) and of the State Intellectual Property Office (SIPO) argued in unison that copyright piracy would be a worldwide phenomenon rather than a particular Chinese problem, and that continued dialogue would be more helpful than open confrontation – statements reported on p. 1 in Zhongguo zhishichanquan bao (China IP News) of April 11, 13 and 20, 2007.

[5] Asien-Pazifik-Ausschuß, Technologietransfer nach China: Leitfaden für Unternehmer (2005).

[6] *See* YIN/ZHU, Intellectual Property Right Abuses in the Patent Licensing of Technology Standards from Developed Countries to Developing Countries: A Study of Some Typical Cases from China, (2007) 10 J. World I.P. 187-200; s*ee* also PATTLOCH, Abuse of IPR is the exception and not the rule, China IP Dec. 2007, 30-35, who raises concerns that misconceptions of "abuse of IP" may be translated into legal practise by extensive application of Sec. 55 of the newly enacted Antimonopoly Act on anticompetitive exercise of IP.

which denies protection to 'prohibited works'. Such treatment would contravene the principle of non-formality set forth in the Berne Convention.

c) Thresholds for criminal enforcement
The value of infringing goods which is sufficient to institute criminal prosecution is criticized as being too high. Excessively high thresholds would exempt too many pirates from criminal liability.

d) 'Reproduction and Distribution' as one infringing act
A fourth complaint is related to an ambiguous legal wording, according to which criminal liability would only apply to 'reproduction and distribution' as one act. Pirates who only reproduce infringing copies without also distributing them would not have to fear criminal sanctions.

That the US limited their complaints to these four issues which could more or less be resolved by amendments to the laws and accompanying administrative rules is quite surprising, as the USTR's Priority Watch Lists of the past years, *inter alia*, also bemoaned toothless administrative treatment, low fines, reluctance to transfer cases for criminal prosecution, lack of coordinated country-wide anti-piracy campaigns, regional disparities with respect to intensity of enforcement, insufficient customs action against export of infringing goods, inconsistent and intransparent court proceedings, biased decisions, lack of transparency and local protectionism.

Why did the US refrain from addressing these issues in their complaints? Do low fines, intransparent proceedings, reluctance to transfer cases to the court etc. not directly contravene Chapter III of the TRIPS Agreement? It can only be assumed that such hesitance has to do with the fact that 'behavioral' phenomena such as local protectionism are hard to grasp and to translate into clear demands for further action. It remains highly doubtful, however, whether abolishing shortcomings in the regulatory framework will result in a drastic reduction of piracy and counterfeiting. The most promising measure may be a further reduction of the thresholds for criminal enforcement but even this will not solve the problem that local enforcement authorities in many cases obviously ignore the law and refuse to transfer cases to criminal court prosecution.[7] Is it possible at all to force a member to adhere to the requirements in Chapter III of the TRIPS Agreement, or are most of its provisions toothless?[8]

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[7] RANJARD/MISONNE, Study 12: Exploring China's IP Environment, in: Study on the Future Opportunities and Challenges of EU-China Investment Relations (2007), enumerate the existing administrative rules and judicial interpretations which so far obviously failed to secure a smooth transfer of cases from administrative authorities to the courts. Available at <http://trade.ec.europa.eu/doclib/docs/2007/february/tradoc_133314.pdf> (as of April 2008).

[8] As diagnosed by HABER, Motion Picture Piracy in China: rated arrrgh! 32 Brook. J. Int'l L. 205-29 (2006); *see* also ATHANASAKOU, China IPR Enforcement: Hard as Steel or Soft as Tofu? Bringing the Question to the WTO under TRIPS, 39 Geo. J. Int'l. L. 217-45 (2007).

3. The Difficulty of Assessing Adequacy of Enforcement

3.1 'Law in General'

Chapter III of the TRIPS Agreements requires, *inter alia*, effective action against infringements, expeditious and deterrent remedies, fair and equitable procedures which are not unnecessarily complicated and costly, adequate border and criminal measures and so on. The chapter is full of widely interpretable terms like 'equitable', 'adequate', or 'unnecessarily complicated' which were introduced to accommodate the demand from developing countries for certain freedom to adapt unfamiliar IP rules to the domestic environment.[9] Therefore, terms like 'equitable' etc. must be individually interpreted in light of each member's state of legal and economic development. Consequently, a WTO complaint about 'inequitable' enforcement would necessitate evidence that the accused country, in light of its general legal and socio-economic environment, is capable of devoting more resources to IP protection than it actually does. Otherwise, it could counter that it had already spent enough efforts, and that further enhancing the protection level would exceed its capacities. Hereby, it could also refer to Article 41(5) TRIPS which stipulates that no member shall be obliged to establish a legal system for IP protection distinct from law in general, or to withdraw resources from the enforcement of law in general just for the protection of IP, a provision which is interpreted as releasing developing countries from the obligation to devote more resources to IP than to other areas of law.[10] In sum, the enforcement chapter of TRIPS considers that infrastructures for IP enforcement in its member states are highly heterogenous, and that it would be unduly harsh to impose a uniform standard without any room for flexibility. As a matter of course, such lack of a uniform standard aggravates the assessment of compliance with Chapter III of the TRIPS Agreement.

Indeed, the western rule of law on which international agreements like TRIPS are based are by far not the only mode of securing peaceful transactions and a coherent society. A number of countries have developed other modes of organizing their societies, for example through social norms and their ad-hoc enforcement by well-respected members of the community. Even where countries adopted European laws under colonial rule, the absorption of 'rule of law' was incomplete. Western law was mainly introduced in areas of immediate interaction between foreigners and locals. In other areas, the colonial powers utilized or adapted traditional forms of law, so as to maintain stability within their dominions.[11] Moreover, in a number of countries, after liberation from colonial rule in the twentieth century, the remainders of colonial law were thinned out by socialist forms of government. China is

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[9] DREIER, TRIPS and the Enforcement of Intellectual Property Rights, in: BEIER/SCHRICKER (eds.), From GATT to TRIPs, IIC-Studies Vol. 18, 248-77 (1996).

[10] YU, From Pirates to Partners (Episode II): Protecting Intellectual Property in Post-WTO China, 55 Am. U. L. Rev. 901–1000 (2006), also available at SSRN: <http://ssrn.com/abstract=578585> (as of April 2008).

[11] ANTONS, Legal Culture and History of Law in Asia, in HEATH (ed.), Intellectual Property Law in Asia 13-35(2003).

such a country with a socialist background. In addition, neither as a semi-colonized Empire until the dawn of the 20th century nor under the chaotic Republican period between the fall of the Empire and the seizure of power by the Communist Party, did it have the opportunity to adopt law and legality from the West. Legal development started only 30 years ago, after the official termination of the Cultural Revolution in which legal rules as a means of securing stability were regarded as running counter to the ideal of a permanent socialist class struggle.[12]

For the new leadership after 1978, laws should create a stable environment for economic recovery, and especially IP laws should serve as instruments of attracting foreign investment.[13] IP legislation started in 1982, with the Trademark Act, followed by the Patent Act in 1984 and the Copyright Act in 1990. In 1993, an Unfair Competition Act completed the basic IP legislation. Apart from the Unfair Competition Act, all laws were overhauled between 2000 and 2001, in anticipation of the accession to the WTO. [14] Even western commentators state that substantive laws on patents, trademarks and copyrights are almost complete. The vast majority of complaints are instead related to behavioral problems such as discriminatory treatment of foreign right owners, reluctance to prosecute *ex officio* even in obvious cases of piracy and counterfeiting, reluctance of enforcement administrations to transfer cases to criminal prosecution, preferential treatment of local infringers, etc.

A main cause for the permanent complaints about IP enforcement is the weak judiciary. Lack of professionalism and susceptibility to political influence in the courtrooms is rooted in China's particular mode of economic reform since 1978, namely a smooth transformation from a planned to a market economy under a formally unchanged political leadership which does not accept control by an independent judiciary.[15] Also on the provincial level, judges can hardly resist political pressure. In court trials, they normally consult all directly and indirectly affected parties, not only the ones who are directly involved but also local People's Governments, administrations and the next instance court in order to assure that their own decision will not be overthrown in case of a review request. The result is too often biased decisions.[16]

It should be noted that the enforcement problems in China cannot be narrowed down to IP. Manipulable authorities and other shortcomings affect enforcement in all areas of law. However, the lack of legality is mainly perceived in legal areas with a significant number of potential users. IP seems to be one of those areas to which

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[12] LU, Zhongguo falüguan he fazhi de yanjin – cong Mao Zedong dao Deng Xiaoping (Chinese Legal Understanding and Emergence of a Legal System – from Mao Zedong to Deng Xiaoping), 9 et seq. (1994).

[13] Without legal protection in place, foreign firms showed reluctant to transfer their technology to China at reasonable license fees, *see* ZHENG, The Patent System of the People's Republic of China, 21 U.S.F.L.Rev. 345–392 (1987).

[14] Overview of the TRIPS-compliant amendments in GUO/ZHU, Are Chinese Intellectual Property Laws Consistent with the TRIPS Agreement? in TORREMANS/SHAN/ERAUW (eds.), Intellectual Property and TRIPS Compliance in China 11–28 (2007).

[15] *See* LUBMAN, Bird in a Cage – Legal Reform in China after Mao 131 (1999).

[16] GANEA/PATTLOCH, Intellectual Property Law in China (2005), 294 *et seq*.

more foreign and domestic litigants would resort if adequate protection were available. This applies especially to Chinese right owners – 90 percent of those who resort to courts and adminstrations to enforce their IP rights are actually Chinese.[17]

On the other hand, 'law in general' is still to a great extent characterized by traditional modes of dispute resolution. People's Mediation Committees continue to play an important role, even if the readiness to litigate has grown and the number of disputes resolved through mediation is on the decrease, especially in the cities. [18] A direct comparison between IP and other areas of law with respect to the relative importance of court and administrative litigation is not possible due to the lack of coherent statistics but the available data at least suggest that juridification of dispute resolution does not evenly diffuse all areas in which disputes may occur. Especially in areas which are related to highly private and personal matters like family and succession law, amicable resolution still seems to be preferred over court judgements which leave behind a clear winner and a clear loser.[19] Litigation seems to be the main mode of dispute resolution in areas which have to do with business and commerce, and therefore in areas which are most likely to involve foreign parties. Among these areas, insufficient IP protection is reported to be the first and foremost area of concern among foreign businesses.[20]

Admittedly, the above findings are grounded on rather incomplete data, but they provide some hints towards a more appropriate interpretation of Article 41(5) TRIPS. Accordingly, it would be inadequate to interpret it as stipulating that those areas of law which lie idle because comparably few locals and hardly any foreigners resort to them shall serve as maximum standards beyond which no further improvements are necessary. Such interpretation would, *inter alia*, put developing countries where the rule of law is broadly accepted as a regulatory factor in a disadvantageous position, as they could not excuse deficient enforcement with reference to IP as an alien element within an otherwise indigenous system of dispute resolution. In a survey, for instance, MNCs lauded India for providing higher levels of legal security and transparency than China.[21] In the specific area of IP, however, India also has great difficulties in securing adequate protection levels.[22] Should India as the poorer

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[17] *See* RANJARD/MISONNE (*Supra* note 7), quoting Supreme People's Court judge Jiang Zhipei.

[18] LUBMAN, s*upra* note 15, at 235 *et seq*.

[19] In 2003, the number of mediated familiy, marriage and succession cases more than doubled the cases heard in first instance by the People's Courts (statistics from the National Bureau of Statistics of the People's Republic of China, quoted under <www.allcountries.org/china_statistics/23_9_number_of_civil_disputes_mediated.html> (as of April 2008) and <www.allcountries.org/china_statistics/23_23_first_trial_civil_cases_of.html> (as of April 2008).

[20] *See* ATHANASAKOU, *supra* note 8; European investors expressed their concerns in Summary of the Business Confidence Survey of the European Chamber of Commerce in China (2007) downloadable under <http://www.europeanchamber.com.cn/events/news.php?id=480> (as of April 2008).

[21] LAUDICINA/WHITE, India and China: Asia's FDI Markets, Far Eastern Economic Review, October 2005, 25 *et seq*.; RESTALL, India's Coming Eclipse of China, Far Eastern Economic Review, March 2006, 12 *et seq*.

[22] India also regularly appears on the USTR's Priority Watch List – lists of the past years under <http://www.ustr.gov/Trade_Sectors/Intellectual_Property/Section_Index.html> (as of April 2008).

economy[23] be under a higher justification pressure than China if confronted with a WTO complaint, just because of a more mature 'law in general'?

The wording of Article 41(5) also points towards a more adequate interpretation, namely as releasing members from the obligation to reduce the efficiency of the enforcement in other legal areas by shifting resources to the particular area of IP protection. The main objective of the provision seems to be the prevention of a trade-off between law in general and the particular area of IP. This implies, however, that a substantial amount of resources must be invested in these other areas of 'law in general', otherwise there would be little to withdraw. If the resources needed for improved IP enforcement can be generated from other sources than law in general, *e.g.* from an increased tax income as a result of rapid economic growth,[24] Article 41(5) TRIPS should not serve as an excuse for lax enforcement, even if the amount invested in IP significantly exceeds investment in other legal areas. Even if TRIPS does not require members to establish an isolated IP enforcement system, so that IP may continue to be protected within the given infrastructure which can be purely judicial, administrative/judicial or tainted with other peculiarities, TRIPS should not be understood as releasing members from the obligation to lubricate this particular part of the otherwise grinding legal machinery. This applies especially to countries where intangible assets generated abroad play a significant role in the course of economic development.

3.2 IP and Industrial Development

Decisive for the relevance of IP for a particular member state is also the stage and speed of industrialization. Mainly agrarian countries with hardly any industrial capacities serve at best as hubs for distributing infringing goods, but they are hardly capable of producing fake commodities. The enforcement infrastructure in such countries may be highly ineffective but only few foreign right owners take notice, as the damage caused by domestic circulation is limited and prosecuting small vendors for counterfeit goods would not be profitable.[25] Other countries are endowed with a quickly expanding industrial base, and a correspondingly expanding range of opportunities to infringe. Such countries no longer serve as mere hubs but become sources of infringing products. Depending on the level of sophistication of their industries, these can be fake textiles and luxury goods, but also parts, machinery or high-tech end products like mobile phones.

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[23] In 2005, GDP per capita in China (US $6.757) nearly doubled GDP per capita in India (US $3,452) – *see* UNDP statistics under <http://hdr.undp.org/en/statistics/> (as of April 2008).

[24] KANJI, Paper Dragon: Inadequate Protection of Intellectual Property Rights in China, 27 Mich. J. Int'l L. 1261–1286 (2006) also emphasizes the necessity to consider the economic strength of a country when assessing its capability of granting adequate protection levels.

[25] The low significance of IP in many African countries may be one reason for the imagination that "Africa" would provide higher levels of IP protection than China and India – *see* GERVAIS, The TRIPS Agreement and the Changing Landscape of International Intellectual Property, in: TORREMANS/SHAN/ERAUW, *supra* note 14, at 74.

China's average annual growth rate since the mid 1990s has been 9.5 percent, with a tendency to further increase.[26] A closer look reveals that the biggest part of industrial output is generated by industries which are engaged in the manufacture of consumer electronics. Between 2004 and 2005 alone, the value of exports in goods classified as 'electrical and mechanical' rose from US $323.3 billion to US $426.7 billion, the value of goods classified as 'high- and new-tech products' from US $165.5 billion to US $218.2 billion.[27] From these export figures, it can be assumed that the industrial output in fields which require a rather sophisticated industrial base increased by 15 – 25 percent within only one year. Moreover, a good part of the increase in gross industrial output can be traced back to direct investment from abroad. Between 2003 and 2005, the value of FDI in the manufacturing sector, which occupies about 70 percent of the value of all FDI, increased from US $36.9 to $42.5 billion.[28] There is good reason to assume that the barrier-free exportability of end products due to China's accession to the WTO further increased the country's attractiveness as a goal for direct investment, so that China's WTO membership had a positive overall impact on China's industrial growth. [29] On the other hand, increased investment also enhanced the opportunities for counterfeiting through learning effects. Should Europe, the US, Japan and other developed countries sit on their hands and watch China reap the benefits of the entire WTO system while it neglects its duties in the specific area of IP?

In sum, on the one hand there is good reason to assume that enforcement in China has indeed difficulties to keep pace with expanding opportunities to counterfeit and to imitate, due to unfavorable basic conditions such as underdeveloped law, a huge population and a weak central control over the provinces. On the other hand, intangible assets play an important role in emerging markets like China that have a high rate of absorption of new knowledge (mainly due to broad acceptance of education),[30] and ideally, this importance should be reflected by correspondingly strong investment in IP protection. Or, in other words, the excuse that economic development must precede legal development and that China needs more time to perfect its enforcement system must be somewhat discounted in light of against its capability

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[26] Available at <http://hdrstats.undp.org/countries/data_sheets/cty_ds_CHN.html> (as of April 2008).

[27] China Statistical Yearbook 2006 (CD-ROM version), Chapter 18-9.

[28] Figures from 2003 in Statistical Yearbook of China 2004, 1011; Figures from 2005 in in Statistical Yearbook of China 2006, Chapter 18-17. The growth in FDI cannot keep pace with the growth in export of manufactured goods, which may be a sign that competitiveness of domestic industries in the manufacturing sector is on the rise.

[29] Regarding the necessity to discuss TRIPS as indissoluble part of the whole WTO system *see* STRAUS, TRIPs, TRIPs-plus oder TRIPs-minus: Zur Zukunft des internationalen Schutzes des Geistigen Eigentums, in: OHLY ET AL. (eds.), Perspektiven des Geistigen Eigentums und Wettbewerbsrechts 197 – 212 (2005).

[30] Illiteracy in China tends towards zero (*see* <http://undp.org/hdr2006/statistics/countries> As of April 2008); Tertiary education is also booming. Students surge into such subjects as mathematics, engineering and natural sciences – *see* China Statistical Yearbook 2005, 697 (ed. by National Bureau of Statistics, China Statistics Press, 2005).

of devoting more resources to intellectual property protection than countries with a less developed industrial basis.

4. The Need for Quantitative Evidence

In sum, two criteria should be considered when assessing whether a quickly developing country has invested enough energy in enforcement:

(a) The extent to which the perception of law and institutional framework favor or hamper enforcement of law in general;

(b) The extent to which the importance of intangible assets for growth and development justify demand for additional public investment in IP protection.

With respect to China, due to the lack of central control over economic and political players at the grassroots level and due to the general underdevelopment of law, the gauge for measuring adequacy of enforcement cannot be raised too high. However, it is justified to ask whether the country has made appropriate use of the available resources in a manner that reflects the actual relevance of IP for the national economy.

When it comes to substantiating the accusation that China has not made enough efforts to enforce IP laws, mere reference to the negative effects of Chinese counterfeiting in other regions of the world, *e.g.* to the 60 percent or more of counterfeit goods seized at US borders which originate from China, or to the huge losses caused to national industries, are of little help.. The Chinese may counter such accusations with reference to the size of the country and its vast population. Other countries especially in the South East Asian neighborhood of China may provide similar or even higher 'per capita' infringement rates, but as smaller countries they would not attract much international attention.[31] Should China receive a stricter treatment, just because of its size?

More instructive are data raised within the country. If we take a closer look at the figures presented by the SIPO in its annual reports,[32] we find that the structure of enforcement heavily depends on the category of IP. Judicial enforcement prevails in the patent field: in 2006, only 1,227[33] patent cases were brought before the local patent enforcement authorities, whereas 3,196 cases brought before the People's Courts. By contrast, copyright and trademark rights are mainly enforced through the administrative route. In the copyright area, local copyright administrations received

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[31] *See* HUGHES, IP Enforcement in China, a Potential WTO Case and US-China Relations, Written Statement before the Economic and Security Review Commission, June 8. 2006, available at <http://www.uscc.gov/hearings/2006hearings/written_testimonies/06_06_08wrts/06_06_7_8_hughes_justin.pdf> (as of April 2008).

[32] English versions of the Annual Reports of SIPO from 1999 – 2006 with statistics on IP enforcement in all areas of IP can be found on <http://www.sipo.gov.cn/sipo_English/laws/> (as of April 2008).

[33] With a tendency to further decrease – in 2003, more than 1800 cases were brought before the local patent administration authorities.

more than 10,000 infringement cases in 2006 and resolved 98 percent of these cases in the same year, the vast majority (around 80 percent) by imposition of administrative fines. The number of copyright cases accepted by courts reached an impressive 5,719 in 2006, but this actually represents a slight decrease as compared to the number of cases accepted by courts in 2005, whereas the number of cases handled by administration increased by about 8 percent between 2005 and 2006.

However, if we believe the USTR, the increases in administrative convictions merely sufficed to keep the estimated rate of unauthorized copies circulated in China at a stable 85 to 93 percent.[34] The consequences infringers have to fear in case of administrative prosecution are a cessation order, confiscation of infringing goods and equipment, and administrative fines up to three times the illegal revenue. At present, only one to two percent of piracy cases accepted by the local administrations are transferred to the People's Courts for further criminal prosecution. Lowering or abolishing the present thresholds for criminal prosecution, as demanded by the US, may widen the track for transfer of cases to the criminal courts. Lower thresholds alone may only have a limited effect, however, as the transfer of cases is significantly hampered by the low degree of cooperation by judges and administrators and, as mentioned, such cooperation remains low in spite of a number of judicial interpretations and administrative regulations which more or less explicitly address the circumstances of transfer to the courts.[35] Improvements in this field require far-reaching measures beyond amendments to the regulatory framework, including investment in manpower, capacity building and control mechanisms. Such investment is reported to be low, especially in the area of copyright enforcement. In 2006, only 200 NCAC officers were reported to be in charge of nationwide administrative copyright enforcement,[36] a rather negligible number in light of the fact that entire agencies on ministerial level, in the first instance the General Administration for Press and Publication (which is superordinate to the NCAC), but also the the State Administration of Radio, Film and Television and the Ministry of Information Industry, are in charge of publication control.

Such disproportion between the entire investment in publication control and the share dedicated to the protection of copyright, however, can only serve as first but not yet as final proof that China does not take its enforcement obligations seriously. Rather than the sheer number of copyright administrators, it would be important to know what the available staff actually accomplished over the past years. Such data are hard to obtain, however. For instance, statistics according to which local copyright administrations imposed administrative fines in 80 percent of the cases concluded in 2006 do not yet contain any hint of the actual appropriateness of such administrative measures. Were the fines deterring enough, or were they so low that

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[34] <www.ustr.gov/Document_Library/Reports_Publications/2007/2007_Special_301_Review/Section_Index.html> (as of April 2008).

[35] RANJARD/BISONNE, *supra* note 7.

[36] ALFORD, Written Statement to Senate Committee on Commerce, Science and Transportation's Subcommitte on Trade, Tourism and Economic Development of March 8, 2006 available at <http://commerce.senate.gov/pdf/alford-030806.pdf> (as of April 2008).

pirates regarded them as mere cost of doing business? A high recidivism rate among convicted infringers could substantiate the allegation that administrative fines, as well as civil and criminal remedies, do not form an effective deterrent.[37] Such a rate is indeed reported to be high, but figures are not available. Also reports from European and US businesses about delayed cases, biased decisions, local protectionism etc. are rather snaphosts of what one may encounter in the course of an administrative or court dispute, but the number or percentage of cases in which localism actually played a role and prevented a fair decision, or in which public security organs refused to transfer cases to criminal prosecution in spite of high illegal revenues, is not recorded. The Chinese could dismiss the often-heard accusation that it is virtually impossible to enforce IP rights with similar reference to singular, occasional evidence such as sophisticated court decisions,[38] or to the masses of infringing products publicly destroyed in the course of various anti-piracy campaigns. Europeans and Americans could counter-argue that occasional landmark decisions and sporadic raids against infringers would not yet mean sustainable improvement on the broad front, and in the end no side would be able to quantify its respective view with help of reliable data. Such quantification of court and administrative work is essential, however, in order to measure China's progress in the area of law enforcement.

One feasible option of obtaining halfway reliable data may be carefully drafted questionnaires as to duration, costs, procedural requirements, irregularities occurred in the course of procedures, and so on, circulated to firms which went through administrative and court litigation (or tried so but failed to get their cases accepted), as suggested by the European Union Chamber of Commerce in China (EUCCC).[39] Business associations could require their members to fill such a questionnaire each time they initiated a court or administrative dispute. The preparation of such questionnaire should, *inter alia*, consider that parties which lost a case may always be inclined to indicate that they have been treated in an unfair manner.

Finally, such data must be collected over years. Statistics raised with respect to a limited period may bring to light a desolate enforcement situation but not yet

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[37] HUGHES, s*upra* note 31.

[38] *E.g.* Decision of Intermediate People's Court No.1 of the City of Beijing on Dec. 17, 1999, with regard to the liability of ISP for infringing contents hosted on their sites, at a time when the right of making available was not yet explicitly mentioned in the Copyright Act but only subsumable under the non-exhaustive catalogue of exploitation rights– *see* Gazette of the Supreme People's Court 2000 No. 1, 28; German translation in 2000 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 1088. Another landmark decision which overthrew the decision of the Patent Reexamination Board to nullify the "Viagra" patent in China due to insufficient disclosure was rendered by the Higher People's Court of the City of Beijing in September 2007. Further cases reported in YU , *supra* note 10, at 169 *et seq*. The majority of decisions, especially those from the provinces, remain unpublished, however. Only academic publications occasionally reveal the weirdness of some decisions. In one case, evidence that the plaintiff collected by test purchases of pirated software was not admitted because the court found that test purchases would form unfair entrapment, *see* LI, Major Problems of IPR Protection in China: A View of Civil Procedure, [2005] E.I.P.R. 27 (8), 285-288.

[39] RANJARD/MISONNE, *supra* note 7.

whether the present situation forms an improvement or a change to the worse as compared to previous years. Such dynamic development has to be considered when assessing adequacy of enforcement, especially when it comes to the accusation of no substantial improvements over the past years. Constant absolute figures in spite of growing production capacities may also be a sign that enforcement has improved over previous years.

5. Conclusion

Assessing a country's compliance with the TRIPS enforcement provisions is not impossible but the wide interpretability of those provisions necessitates a lot of preparation. From a huge amount of data, the most urgent flaws and shortcomings in enforcement practice must be filtered and the costs of eliminating them by intensified capacity building, country-wide supervision and further endowment of the enforcement authorities with personnel and physical equipment must be realistically estimated. Such estimates must be evaluated in light of data on the respective countries' economic development and data which represent the extent to which intangible assets from abroad play a role in the course of such development.

In light of the present lack of such data, the US has been well advised to confine their list of complaints to obvious shortcomings in the regulatory framework. As it seems that the majority of problems can be traced back to behaviors and attitudes rather than laws, legal amendments may not yet effect substantial improvements but they may further reduce the leeway for arbitrariness and opportunism. If we believe the complaints from Europe and the US, such leeway seems to be especially broad in the area of administrative and court procedures. Further demands to perfect the legal framework should therefore focus on clarifications to the procedural rules on the most detailed level, *e.g.* on the circumstances under which a court has to accept a case, on the formalities which foreign litigants have to accomplish in the course of furnishing evidence, on the right of the plaintiff to take part in administrative procedures against infringers, or on the further alignment of administrative provisions and judicial rules with respect to the transfer of infringement cases. Again, such clarifications alone will not yet guarantee 'fair' or 'not unnecessarily costly and complicated' procedural practice but they will make the actual gap between the laws and their actual enforcement more visible and will thereby further increase the pressure of justification on the Chinese authorities.

Trade Secrets and Patent Litigation

Charles Gielen

1. It is an honour to be invited to write an article on the occasion of the 70th birthday of Joseph Strauss, one of the icons of the intellectual property world. I have had the pleasure of working with Joseph not only in the context of AIPPI, where I succeeded him as chair of the special committee on biotechnology and plant breeders' rights, but also on a number of patent cases. As a token of congratulation, I would like to develop some thoughts on the question of how trade secrets could or should be protected in patent litigation. There are several instances where trade secrets become an issue in patent litigation and in such situations there is clearly a high degree of tension between, on the one hand, the principle that the truth should be revealed as much as possible in litigation and, on the other hand, the desire not to disclose particular information. In the preliminary stages of litigation where the patentee tries to obtain evidence on infringement, particular measures that the patentee can take under national law (discovery-type measures, preliminary witness hearings, orders to provide information on the source of the infringing products or on customers, etc.) may result in the disclosure of trade secrets by the alleged infringer. Furthermore, during the course of litigation, the court may order the disclosure of evidence potentially containing secret information. It is interesting to see whether and how the protection of trade secrets in such a situation is guaranteed.

2. The starting point of the legal *tour d'horizon* is the TRIPS treaty, the international basis for the enforcement of IP rights. This treaty formed the basis for what is known as the EU Enforcement Directive, which is also relevant to the issue of trade secrets in patent cases.[1] Let us first see which provisions of the various international instruments are relevant. In order to try to define what I understand trade secrets to be, it is good to investigate whether there is any international consensus on this issue. The Paris Convention does not explicitly refer to the protection of trade secrets. Of course Article 10*bis* of that convention obliges members of the Union of the Paris Convention to give protection against acts of unfair competition. It is under that umbrella that a number of national laws grant protection against the abuse of trade secrets. Article 39 of TRIPS requires member states to protect undisclosed information in the course of ensuring effective protection against unfair competition as provided for in Article 10*bis* Paris Convention. On the basis of Article 1(2) TRIPS such protection falls under the protection of 'intellectual property' which, to the extent that trade secrets are concerned, is not surprising because protection against unfair competition falls under the definition of the protection of industrial property rights laid down in Article 1(2) Paris Convention. Article 39

[1] Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, OJ L 157/45.

TRIPS speaks of 'undisclosed information', which is not the term generally used.[2] I am using the term 'trade secrets' since it more clearly expresses what is really meant. The TRIPS provision grants protection to secret information (*see* Art. 39(2)(a)) that has commercial value (*see* Art. 39(2)(b)); it therefore pertains to secrecy in trade. In addition, the notion of trade secrets is normally used in the US, where most states have had statutory laws based on the Uniform Trade Secrets Act for many years now.[3] Of course the term 'know-how' is also often used. However this term encompasses both secret and public information, and is therefore less suitable.[4]

3. Article 39 TRIPS aims at providing a system of protection against the abuse of trade secrets in the course of trade. Under the conditions provided therein, the abuse of trade secrets is unfair and there should be an effective protection against such behaviour. This provision is, of course, only relevant for the assessment of the fairness of the behaviour of market participants. In my opinion, the provision has no direct bearing on what should happen regarding the unauthorized or unwanted disclosure of trade secrets in the context of litigation. However, since the TRIPS provision lays down the conditions for protection of secret information, it can be a helpful tool in applying other provisions where confidential or undisclosed information is mentioned, such as the last sentence of Article 43(1) TRIPS, and, particularly, in defining what should be protected in the context of litigation and what not. Unfortunately, the situation in the EU is a patchwork quilt. Since Article 39 TRIPS does not create rights for individuals and is only directed towards contracting states, this provision must be implemented in national law in order to create such rights. So far, no attempts have been made to implement it at EU-wide level. At national level, some countries have implemented Article 39 in their laws (*e.g.* Articles 98 and 99 of the Industrial Property Code in the case of Italy) or are in the process of doing so (*e.g.* Sweden). In the Netherlands, the government seems to have taken the position that Dutch law is in line with Article 39 TRIPS, a position with which I disagree. Under Dutch law, there are no specific provisions on unfair competition and the rule developed in case law is that a competitor can freely make use of the knowledge and achievements of his competitor unless this would constitute an infringement of IP

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[2] Even in TRIPS itself several different notions are used; see for example Art. 43(1), last sentence, where 'confidential information' is used, and Art. 34(3) which refers to 'manufacturing and business secrets'.

[3] *See* McKown, Discovery of Trade Secrets in Litigation in the United States, [1993] EIPR 327.

[4] In Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements, the term 'know-how' is used and is defined as: '*a package of non-patented practical information, resulting from experience and testing, which is:*
(i) secret, that is to say, not generally known or easily accessible,
(ii) substantial, that is to say, significant and useful for the production of the contract products, and
(iii) identified, that is to say, described in a sufficiently comprehensive manner so as to make it possible to verify that it fulfils the criteria of secrecy and substantiality.'
Of course Regulation 772/2004 is not meant to provide for the protection of trade secrets.

rights or cause an unnecessary likelihood of confusion.[5] By contrast, however, Article 39 TRIPS lays down a *positive* norm on the basis of which it is forbidden to make use of trade secrets under the conditions provided for in that provision, an approach which cannot easily be fitted into the Dutch doctrine of unfair competition. I think it is necessary to implement Article 39 in a harmonious way and this should, of course, be done through an EU harmonization directive.

4. Let us then turn to the provisions concerning enforcement of IP rights in which specific reference is made to the safeguarding of trade secrets. The major advantage of the TRIPS treaty is that it provides for minimum standards for the effective enforcement of IP rights. A reference to trade secrets can be found in three provisions, namely Articles 34(3), 42 and 43.

5. Article 34 can be found in the section of the treaty dealing with patents and it provides for a shift of the burden of proof in cases involving an alleged infringement of a process patent resulting in a new product. In such a case, the alleged infringer will have to prove that he is not applying the process. The question is how to deal with subsection (3) of Article 34, which provides that in the adduction of such proof, the legitimate interests of defendants in protecting their manufacturing and business secrets must be taken into account.[6] The principle should be that where there is a shift of the burden of proof, the patentee's legitimate interest in being able to enforce his process patent is stronger than the defendant's interest in keeping his process secret; denying this principle would in fact take away the essence of the shift of the burden of proof. However, it is possible that the process used by the defendant contains steps that do not fall under the patented process and that are even innovative. If the defendant can convince the court that there is an interest in not disclosing steps that are not relevant to the patent, the court can appoint an expert who is put under a secrecy obligation and, after having studied the defendant's process, reports whether the step(s) crucial to the patent is (or are) followed. This system has also been applied in the Netherlands in a case where the burden of proof did not shift to the defendant because the product obtained on the basis of the patent was not new. Under Dutch law, a party who wishes to obtain proof of a particular fact in order to assess the chances of success in a claim can request the court to organize a provisional witness hearing. In a case concerning a process patent, the patentee requested a provisional witness hearing for the purpose of hearing the individuals at the alleged infringer's company who were responsible for the manufacturing process in question. The alleged infringer claimed that such a hearing would necessarily result in these people disclosing trade secrets. The court's solution was, firstly, to decide that it would see the questions to be put to the witnesses beforehand, in order to avoid the operation becoming a fishing expedition and, secondly, to order that particular steps be reported only to an expert under an obligation of secrecy, in order

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[5] Hoge Raad, June 26, 1953, 1954 Nederlandse Jurisprudentie 90 with annotation HOUWING – *Hyster Karry Crane*.

[6] It is striking that TRIPS speaks of 'manufacturing and business secrets.' I take it that this means no more and no less than trade secrets.

to avoid any unnecessary disclosure.[7] If it appeared that no satisfactory protective measures could be taken and that the preliminary witness hearing would amount to a fishing expedition the court would have the possibility to deny the request for the hearing on the grounds of abuse by the patentee of his right to request such a hearing.[8]

6. Let us then turn to Article 42, which represents a sort of constitutional rule valid for all IP litigation (and which, as far as I am concerned, should be valid for all types of litigation) with the aim of ensuring that the proceedings are fair and equitable. For our purposes, the last sentence of the provision is relevant, namely that the procedure must provide a means of identifying and protecting confidential information.[9] Under Dutch law, the safeguard for protecting trade secrets is spread out over a number of provisions without a clear structure, or at least without a specific general provision on which a party who wishes to invoke the protection of trade secrets can rely. However, in an administrative law case, the Dutch Supreme Court laid down rules on what should happen if a party that is under an obligation to disclose particular information requests protection of the confidential character of such information.[10] The Supreme Court held that in order to rule on such a request, the court first of all needs to inspect the information in order to be able to assess whether keeping the information confidential is justified. If the answer is yes, the party invoking the confidentiality of the information (party A) may inform the court that the information is to be revealed only to the court. The other party (party B) must then inform the court whether it consents to the rendering by the court of its decision based on such information. If party B does not consent to this, the composition of the court that took cognizance of the information must be changed. By refusing to grant its consent, party B runs the risk that this will result in the court concluding that the confidential information confirms the correctness of the facts relied upon by party A.[11] If the newly composed court concludes that it cannot properly decide the case without taking cognizance of all or part of the confidential information, it can request the parties to provide it with such information. The relevance of this decision is that the Supreme Court gave at least some general rules on what to do in situations where confidential information is at stake. The fact that this case pertained to administrative law should not, in my opinion, preclude the application by the courts of similar rules in civil cases.

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[7] District Court of The Hague, September 27, 1996, docket no. 96.310 and 3 June 1998 docket nos. 96/1455 and 96/1471 –*Allied Signal/DSM* (unpublished).

[8] *See* for the basic rule: Hoge Raad 19 February 1993, 1994 Nederlandse Jurisprudentie 345 – *Van de Ven/Pierik c.s.*. *See* for application of this rule in a patent case: District Court of Arnhem (rechter-commissaris) April 19, 1984, 1986 Bijblad bij de Industriele Eigendom 71 – *Dupont/Enka*.

[9] The exception 'unless this would be contrary to existing constitutional requirements' may seem odd, but it refers to those jurisdictions where, under the constitution, secrecy in civil litigation is forbidden, *e.g.* South Africa and some Asian countries; *see* GERVAIS, The TRIPS Agreement: Drafting History and Analysis 291, note 90 (2nd ed. 2003).

[10] Hoge Raad, December 20, 2002, 2004 Nederlandse Jurisprudentie 4 with annotation by VRANKEN; *see* also VAN DER KORST, Bedrijfsgeheimen en transparantieplichten 130 (2007).

[11] This is more or less in line with Art. 43(2) TRIPS.

7. As I see it, the safeguarding of trade secrets as provided for in general terms in Article 42 TRIPS can be achieved in three different ways. The first is the legal right of certain persons (*e.g.* lawyers, medical doctors and patent agents) to refuse to answer questions in a witness hearing or to otherwise disclose certain information in court proceedings. I will not discuss this legal right, which more or less speaks for itself, any further. The second consists of a series of possibilities to prevent confidential information disclosed in documents filed with the court or during a hearing from becoming publicly known. Here I am thinking of the possibility for courts to hold *in camera* hearings, a possibility that is explicitly provided for under Dutch procedural law. Under Dutch law, hearings are in principle public, but the court can order a hearing to take place behind closed doors under certain circumstances. One such circumstance is where the requirements of due observance of privacy so dictate, which, in the context of legal entities, means the protection of confidentiality.[12] In order to prevent the litigants that are present during a hearing behind closed doors from disclosing information to third parties that are not present, there is a statutory rule prohibiting the litigants from disclosing such information to anyone.[13] It is generally felt that a similar obligation also applies to other persons who are present at the hearing, such as experts.[14] Furthermore, the court has the power to prohibit the disclosure of any information from legal proceedings (such as documents filed in the proceedings, the content of witness statements, etc.).[15] Such a prohibition can be reinforced by the imposition of a penalty in the event that the court's order is violated. This can be a very helpful tool, particularly in patent cases.

8. The third line along which trade secrets can be protected in patent cases consists of a variety of safeguards laid down by statute or in case law, such as the Dutch Supreme Court decision mentioned in point 6 above. I will mention a few of these safeguards and discuss how they are or could be applied. Some of them are the consequence of Article 43 TRIPS and the Enforcement Directive.

9. I will first discuss Article 843a in conjunction with Article 1019a Dutch Code of Civil Procedure. Article 843a has been depicted as providing for a type of 'Dutch discovery.'[16] In fact it provides for a powerful tool on the basis of which any particular piece of evidence in the hands of a third party can be obtained or inspected further to a request filed with the court. Such a request can be filed by anyone who has a legitimate interest in obtaining the evidence, where such evidence is of relevance in determining the legal relationship between the requesting party (or his legal predecessors) and another party. The third party can be any party that has the evidence at his disposal or in his possession. Article 1019a, recently introduced on the basis of the Enforcement Directive, makes it clear that a legal relationship as referred to in Article 843a can be the result of an infringement of an IP right. So, if in the context

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[12] Art. 27 Dutch Code of Civil Procedure.
[13] Art. 29(1)(a) Dutch Code of Civil Procedure.
[14] *See* BEIJER, Tekst & Commentaar, Burgerlijke Rechtsvordering, Art. 29, note 4.
[15] Art. 29(1)(b) Dutch Code of Civil Procedure.
[16] *See* WINTER in annotation under District Court of Rotterdam, October 3, 1996, Tijdschrift voor Vennootschappen, Verenigingen en Stichtingen 55 (1997).

of patent litigation the patentee wishes to inspect laboratory protocols (whether written or on disk), he can request the court to order the laboratory to allow inspection or to provide copies.[17] Article 843a already existed before TRIPS entered into force and, of course, well before the Enforcement Directive came into existence.[18] It should also be noted that its provisions are broader than those of TRIPS and the Directive, because the latter two refer to evidence in the hands of the opposing party in the litigation (or future litigation), whereas Article 843a enables the patentee to obtain evidence from anyone who possesses it. Pursuant to Article 43 TRIPS[19] and Articles 6 and 7 Enforcement Directive dealing with evidence, Article 1019a(3) provides that the protection of confidential information should be ensured.[20] It is generally felt that this provision of Dutch law can only be applied if the applicant specifies the evidence he wants to have, although it is not necessary to specifically indicate each and every document. The question about the specificity of the evidence should be seen in relation to the applicant's legitimate interest in obtaining that evidence, which means that a request for evidence should not result in a 'fishing expedition'.[21] Therefore, the applicant cannot simply say that he wants copies of the complete books and records of a company; however, he can ask for a copy of the full file on specific litigation.[22] The patentee does not have the right to obtain copies of documents the existence of which is only assumed by him.[23] However, the licensee of a patent who does not properly pay the licence fees or give account regarding his sales may be put under an obligation to allow inspection of that part of his books and records relating to the sales of the licensed products. In this context the court

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[17] In case law it had been decided that under this provision one cannot request inspection or the submission of copies of unspecified documents, such as all protocols or any documents containing chemical formulae, but only specified documents that are known to exist; *see* among others President District Court of Breda, October 25, 2006, docket no. KG ZA 06-449 – *SLC/Stakenburg* (unpublished).

[18] *See* also GIELEN, Bescherming van Bedrijfsgeheimen 55 (1999).

[19] The text of Art. 43(1) reads: 'The judicial authorities shall have the authority, where a party has presented reasonably available evidence sufficient to support its claims and has specified evidence relevant to substantiation of its claims which lies in the control of the opposing party, to order that this evidence be produced by the opposing party, subject in appropriate cases to conditions which ensure the protection of confidential information.'

[20] The aspect of confidentiality played a role in a case where the owner of a copyright regarding software seized data carriers containing the allegedly infringing software. In order to safeguard confidentiality, the President of the District Court authorised inspection of these carriers only by a third party who would check the software to see whether it was of an infringing nature and then report on his findings without disclosing any other information to the owner. The third party was bound to secrecy about the information. President District Court of Breda, October 25, 2006, 2007 Bijblad bij de Industriële Eigendom 437 –*SLC/Valar Groep*.

[21] *See* SIJMONSMA, Article 843a Wetboek van Burgerlijke Rechtsvordering ont(k)leed, 2007 Ars Aequi Libri 38.

[22] In this context I refer to a case where the alleged infringer in a patent infringement case knew that the patentee had sued his former patent attorney and that, in those proceedings, it had been held that the patent was null and void. The patentee was ordered to allow inspection of the file of the proceedings between him and his former attorney.

[23] President District Court of The Hague, July 27, 2005, 2005 Intellectuele Eigendom en Reclamerecht 378 – *Honeywell/Apollo*.

should in the light of the applicants legitimate interest not require that the documents are clearly defined. but whether they are definable.[24] Also, it is not necessary for the contents of the evidence in question to be known or to support a position taken in the proceedings. For example, inspection of documents from which it appeared that former employees had violated a non-competition clause in their employment agreement was allowed notwithstanding the fact that the former employees denied such violation.[25]

10. As described above, Article 843a Dutch Code of Civil Procedure is a tool by which, for example, a patentee can request inspection or delivery of copies or extracts of evidence which is in the hands of a third party. Pursuant to Article 7 Enforcement Directive, the national laws of EU Member States should now provide for provisional measures for the preservation of relevant evidence in respect of an alleged infringement. Such measures may include a detailed description of the infringing goods (with or without the taking of samples), the physical seizure of the goods and/or, in appropriate cases, the seizure of materials and implements used in the production and/or distribution of these goods as well as the documents relating thereto, subject to the protection of confidential information.[26] Once a court decides that specific evidence should be filed for inspection or that copies should be made available, the question is how due account should be taken of the protection of such confidentiality. As an example, I refer to a case on the alleged infringement of a right to a trade name. The owner of the trade name rights wanted to secure evidence concerning the infringement and requested that all the books and records of the defendant – including computer files, correspondence and diaries – be seized and put under legal custody. The defendant argued that establishing the alleged infringement did not necessitate the seizure of all of its books and records. The Court of Appeal decided that it was true that there was no need to inspect all of the books and records in order to establish infringement of the trade name rights, but that the books and records could reveal the extent of the infringement and would provide evidence as to damages. The court then dealt with the issue of the safeguarding of trade secrets. This was done by ordering that the seized goods be put in the custody of a third party and prohibiting this third party from giving any information about the contents of the seized goods to the applicant or any other party until the President of the District Court ruled on the way in which the evidence was to be used in light of the due protection of trade secrets.[27] The protection of trade secrets also played a crucial role in a recent patent case, *Synthon/Astellas*. The facts of the case were as follows: Synthon was sued in Germany for infringement of the German part of a European patent. The patentee, Astellas, wanted to secure evidence in the Netherlands in connection with the German litigation. At the *ex parte* request of Astellas, the court ordered that the documents to be seized were be put into the custody of a bailiff, who would make copies of the documents for the benefit of inspection by

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[24] *See* VAN DER KORST, *supra* note 10, at 98.
[25] *See* District Court of Dordrecht, June 24, 2004, LJN AP3695 –*Hoogendonk/Dutch Spiral*.
[26] This is now provided for in Art.1019b Dutch Code of Civil Procedure.
[27] Court of Appeal of Den Bosch, May 39, 2007, 2007 Praktijkgids, no. 104 – *EBM/ESQ*.

Astellas and then return the originals to Synthon. After the documents had been seized and copied, Astellas' lawyers were allowed by the bailiff to inspect the copies and, on that basis, they drew up a report which was filed in the German litigation. Synthon opposed this procedure and the court had to decide whether or not the order for seizure had been granted in the correct way and/or had been misused by the patentee. The first issue, however, was whether protective measures to secure evidence can also be ordered if such evidence is relevant for infringement only of foreign rights. Synthon took the position that the Dutch provisions only applied to Dutch IP rights. Synthon's standpoint was rejected by the court on the grounds that this would be against the harmonization principles underlying the Enforcement Directive. The court also relied on Article 31 of what is known as the EEX Regulation,[28] which provides that an application may be made to the courts of an EU Member State for such provisional, including protective, measures as may be available under the law of that state even if, pursuant to the Regulation, the courts of another Member State have jurisdiction as to the substance of the matter. Next, the court decided that permission to proceed with the securing of evidence by seizing documents does not automatically mean that there is a right to inspect the documents seized. Therefore, the order permitting seizure had been too wide in so far as it said that the bailiff should make copies *for the benefit of inspection by* Astellas. Astellas, on its side, took the position that inspection by Astellas itself was necessary in order for a proper description to be drawn up by the bailiff. The court rejected this point of view as well, stating that it was up to the bailiff to draw up the requisite description. The argument that the documents were seen only by Astellas' lawyers, but not by Astellas itself, was rejected on the grounds that a patentee's lawyer is considered to be representative of the patentee and should be identified with him. So, the court ordered Astellas to ensure that everyone who had directly or indirectly taken cognizance of the documents and the data contained therein kept these secret. Surprisingly, however, the court decided that this order was not valid for the German proceedings and did not order Astellas to withdraw the report from those proceedings. I agree with Vollebregt, who wrote a critical note under this decision saying that the court should have gone further by also ordering the withdrawal of the report from the German proceedings, and should not have left it to the German court to decide what could be done with the report.[29]

11. Let me then turn to some other provisions that can cause tension between the obligation to provide information in proceedings on the one hand, and the protection of trade secrets on the other. In IP cases the principle of due regard for the confidentiality of information is provided for in Article 6 Enforcement Directive, which follows Article 42 TRIPS. One of the items of information most often required in patent infringement cases is information on the source of the infringing products. A general obligation to furnish such information is provided for in Article 8 Enforce-

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[28] Council Regulation No. 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgment in civil and commercial matters, OJ L 12/1 from January 16, 2001.

[29] President District Court of Arnhem, June 1, 2006, 2007 Intellectuele Eigendom en Reclamerecht 350, 2007 JGR, no. 28 with annotation VOLLEBREGT –*Synthon/Astellas*.

ment Directive, which follows Article 47 TRIPS. Such information pertains to not only the source, but also the distribution channels of the allegedly infringing products. It often happens that the defendant does not wish to disclose such information because he considers the names and addresses of his supplier(s) or customers as trade secrets. It is my opinion that in such a case, and assuming the court concludes that the products are infringing, the defendant's interest in keeping the contact details of his supplier(s) and customers secret should not outweigh the patentee's interest in stopping the infringing activities in an efficient way. Otherwise the obligation laid down in Article 8 Enforcement Directive would be of very little use. In this context it is noteworthy that neither Article 47 TRIPS nor Article 8 Directive explicitly refers to the interests of protecting trade secrets. The interest of protecting trade secrets in relation to the obligation to provide information on distribution channels might, however, play a role where the court orders a recall of the infringing products.[30] In order to verify whether a defendant in a patent case has in fact sent a communication to his customers requesting a recall, the court can order the defendant to provide the patentee with a full list of his customers. The Dutch Supreme Court said that this is an effective way of verifying whether the defendant has complied with the order, but also ruled that the court should take into account the defendant's interest in not disclosing commercial information to his competitor(s). In most cases this interest is taken into account by ordering the defendant to disclose the relevant data to a neutral person (such as a notary or auditor) who could then check whether the communication was sent and report on it to the patentee.

12. There is one other situation in which the infringing party can be required to disclose information he considers to be confidential. Under Dutch patent law, in the event of infringement the patentee can request the surrender of profits, in respect of which the infringing party must render account, for example by providing invoices etc.[31] If the infringing party can convince the court that all or part of such information is confidential and should not be disclosed, the court can easily order the infringing party to render account to an expert, such as an auditor, who then reports to the court on the figures necessary to calculate the profits. In this way, due regard is given to the last sentence of Article 41 TRIPS. I also refer to Article 8(2)(b) Enforcement Directive, which provides that the judicial authorities may order that information be given on, among other things, the quantities of infringing products produced, manufactured, delivered, received or ordered, as well as the price obtained for the goods or services in question.

13. Finally, I will refer to some other provisions that may result in the disclosure of confidential information during litigation. Under Dutch law (Article 19 Dutch Code of Civil Procedure), the principle is that the litigants are obliged to present all facts that are relevant for the decision in a complete and truthful way. If they do not, the court can draw whatever conclusion it deems expedient. Hiding facts because they are confidential seems to be in conflict with this principle. However, as already

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[30] Explicitly made possible by Hoge Raad, February 23, 1990, 1990 Nederlandse Jurisprudentie 664, with annotation VERKADE (*Hameco*).

[31] Art. 70(4) Dutch Patent Act.

follows from the aforementioned decision of the Dutch Supreme Court[32], a party can invoke protection against the disclosure of trade secrets. The protection of trade secrets is also covered by another procedural provision, namely Article 22 Dutch Code of Civil Procedure, which states that the court can in all cases and at any time during litigation request one or more of the litigants to file particular documents. The relevant party can refuse to do so if there are compelling grounds not to file the document(s) in question. The legislative history shows that the protection of confidential information constitutes compelling grounds as referred to above. It is up to the court to decide how in such a case the information can be disclosed, on the one hand, and due regard given to its confidentiality, on the other.[33] The latter can be achieved in different ways, for example by imposing an obligation of confidentiality on the parties, by not mentioning the information in the judgment or by holding the hearing behind closed doors.[34]

14. As we have seen, the TRIPS treaty – and following this treaty the Enforcement Directive – sets out a general framework for securing protection against the disclosure of trade secrets in patent and other IP proceedings. However, the way in which such protection is guaranteed in litigation practice is very much judge-made law and can therefore differ from country to country. I have tried to give some insight into the way in which Dutch courts deal with the protection of trade secrets and it seems that this could be inspiring to other courts that have less experience in patent litigation. It will be interesting to see how other courts are dealing with the subject, because it is through the exchange of information on litigation practice that real harmonization can be achieved. We should be very grateful to Joseph Strauss for having played such an important role in the harmonization process of IP law not only on a European, but also on a global, level.

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[32] *See supra* note 10.

[33] There is a further provision in the Dutch Code of Civil Procedure, namely Art. 162, which provides that the court can, in the course of litigation, order one or more of the parties to open the books and records or documents that they are legally required to keep. This provision elaborates on Art. 22 and does not seem to have much of an independent value. In contrast to Art. 22, Art. 162 does not state that a party is entitled to refuse such an order if there are compelling grounds for doing so. However, it is generally felt that such a right exists also in relation to Art. 162; *see* VAN DER KORST, *supra* note 10, at par. 6.4.

[34] *See* VAN DER KORST, *id.* at par. 6.4.

Reflections on the German Patent Litigation System

Peter Mes

1. Introduction

The German National Group of the AIPPI and in particular the AIPPI itself owe a great deal to Prof. Dr. Joseph Strauss. For many years Prof. Dr. Strauss chaired the program committee of the AIPPI. In this capacity he considerably advanced the programmatic work of the AIPPI in the area of intellectual property rights. In 2006 the AIPPI made Prof. Dr. Straus an honorary member.

The AIPPI has a number of special committees, amongst them the committees Q165 (EPLA, Optional Protocol to the EPC with regard to Litigation concerning European and Community Patents) and Q185 (Enforcement of Intellectual Property Rights). Since 2001 congresses and executive committees have regularly commented on EPLA in reports and resolutions. The latest development is extensively described in the report by the Q165 special committee of EXCO Singapore from October 6 to 9, 2007.[1]

2. The Success Story of German Patent Litigation

German patent infringement procedure has proved itself over many years. Patent holders, in particular both individuals and companies, in Germany and abroad, seeking protection have great faith in it and like to resort to it. In the Federal Republic of Germany many actions for patent infringement are brought which have a pilot function for parallel cases abroad. This applies particularly to American and English cases.

Every German attorney practising in the field of patent law will be met with disbelief at best by a fellow foreign lawyer or patent attorney when he reports on the German patent infringement process and explains that a final decision in the first instance can regularly be reached in less than nine to twelve months. More likely he will be regarded as a hopeless and impossible fantasist and boaster. Accordingly foreigners can scarcely be persuaded to accept the idea that a German lawyer is able to handle, for instance, more than ten or fifteen patent infringement cases a year.[2]

In fact, all this has nothing to do with boasting or exaggeration. It is legal fact, and not just a new fact but an established one. The "success story" of the German

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[1] AIPPI, Reports of Special Committees; Report Q165, prepared by PAGENBERG, p. 1 *et seq.*, available through www.aippi.org.

[2] In fact there are a number of professionals who handles far more than ten or fifteen patent infringement cases a year.

patent infringement procedure can be demonstrated, for example, by the figures,[3] which have long been regarded as newly filed case figures for the 4th Civil Chamber (Civil Chamber 4a and 4b) of the Düsseldorf District Court. For 2005, 2006 and 2007 alone the figures are as follows:

	2005	2006	2007 (up to and including October 31, 2007)
Newly filed cases:	529	439	463
Settled	503	459	426

Even if the above figures apply to Düsseldorf's District Court only, it can be assumed that, while they might not be quite so high, the figures of the other German patent courts are also very high by international comparison. These are, in alphabetical order, the patent chambers of Braunschweig, Frankfurt, Hamburg, Mannheim, Munich and Nuremberg District Courts. It is estimated that German patent courts handle more than 1,200 patent infringement cases every year. These figures are unique worldwide and are attributable solely to the faith that patent holders have in the system, on the one hand, and the effectiveness and quality of the German patent infringement procedure, on the other.

In contrast, the figures of patent courts in other European Member States are much lower. Under the German Presidency, a questionnaires (dated April 23, 2007) was sent to the respective courts in the EU Member States, as part of the preparatory work for EPLA. One was interested in obtaining more information about those courts in the member countries of the European Union concerned with patent infringement cases. In particular, one was interested in obtaining figures on the cases and specialized judges in the member countries of the European Union. The results of this survey were published in connection with the Portuguese presidency on July 12, 2007.[4] They are informative. Fourteen of the twenty-seven member countries surveyed stated that they had fewer than ten patent infringement cases a year. About seven of them say that they have not had a single patent infringement case to report for several years. There are only four countries in the European Union which have more than one hundred patent infringement cases a year.

The reasons patent holders seeking protection have for their interest in resorting to the German patent infringement procedure are numerous. They are, however, due to a few peculiarities of German patent infringement procedure. These – even if widely known – will be outlined in the following. The German (Federal) legislator has framed the patent infringement procedure highly effectively and in a special way.

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[3] The following figures were supplied by Presiding District Court Judge Dr. Kühnen, until December 31, 2007 President of Civil Chamber 4b of Düsseldorf District Court; from January 1, 2008 Presiding Judge to the 2nd (Patent) Senate of Düsseldorf Higher District Court.

[4] *Cf.* on this PAGENBERG, *supra* note 1, at 2.

2.1 Courts Presided Over by More than One Judge

Section 143 Para. 1 German Patent Act states that, regardless of the value at issue, the civil chambers of the District Courts are solely responsible for handling all patent cases. It is thus ensured that patent cases are (regularly) heard by a court presided over by three professional judges. The civil chamber of a District Court is made up of a presiding judge and at least two assisting judges. It goes without saying that only a judge with considerable and long professional experience can be the presiding judge of a civil chamber of the District Court. It is furthermore common practice to appoint assisting judges of whom at least one has considerable professional experience. The system of courts presided over by more than one judge has from the start the considerable advantage over the single-judge system that it concentrates on the existing personal and professional experience of all the judges and utilizes it in reaching a decision. In particular it – *per se* – ensures that a biased decision is not reached. The system of courts with more than one judge, however, also has the further advantage that it serves for the training of young judges. If a chamber has three or four assisting judges – as is not unusual -, at least one or even two will be younger and less professionally experienced judges. These are integrated into the system of courts presided over by more than one judge and trained in this way.

2.2 Concentration of Patent Cases

Section 143 Para. 2 German Patent Act states that the governments of the states of the Federal Republic of Germany are empowered to assign by legal ordinance patent cases for the areas of a number of District Courts to one of these District Courts. Under Section 143 Para. 2 Sentence 3 German Patent Act the states may by agreement between them even assign tasks to be dealt with by the courts of one state partly or wholly to the responsible court of another. Under this provision, specialized patent infringement courts were established in all states, except for the states of Berlin and Saarland.[5] A few states have also taken the option offered by Section 143 Para. 2 Sentence 3 German Patent Act. This applies to the states of Bremen, Hamburg, Mecklenburg-Vorpommern and Schleswig-Holstein, which have agreed on Hamburg District Court as the patent court for the settlement of patent disputes. The reason for the concentration of patent cases is clear. The concentration will enable judicial experience in patent disputes to be pooled and advanced.[6] The legislative intention has been realized in full. It is no secret that some of the existing patent courts are resorted to more frequently than others. It is true of all the patent courts of the Federal Republic of Germany that they have recognized specialist knowledge that is at their disposal.

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[5] *Cf.* the listing in 2000 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 36, 390; reproduced *i.a.* in MES, PatG, Sec. 143, note 10 (2nd ed. 2005).

[6] Official substantiation 1936 Blatt für Patent-, Marken- und Zeichenwesen (BlfPMZ) 193, 114; Higher District Court Düsseldorf (Oberlandesgericht, OLG) 1986 Das Juristische Büro (JurBüro) 1904.

2.3 Collaboration Between Lawyers and Patent Attorneys in the Patent Infringement Process

Of special significance is, furthermore, the requirement of Section 143 Para. 3 German Patent Act. This relates to the costs, which are incurred through the assistance of a patent attorney in a patent infringement case. Section 143 Para. 3 German Patent Act states that in all cases the fees laid down in Section 13 of the German Lawyers' Remuneration Act and also the necessary disbursements made by a patent attorney assisting in a patent infringement case are to be paid and refunded.

The sense of this requirement can be appreciated only by somebody who is familiar with German civil procedure. It is characterized by, *i.e.*, the fact that the one who loses a civil case is required to pay the costs[7] (including Court's costs as well as the costs of the parties, especially lawyers' fees, disbursements and so on). The costs of a case must be decided ex officio by every court in its judgement.[8]

That Section 143 Para. 3 German Patent Act contains cost provisions in favor of patent attorneys who assist (on behalf of the plaintiff and/or the defendant) in patent infringement cases, testifies to the legislator's intent to clarify the underlying facts of a case as completely as possible. Since patent infringement cases amost always involve technical questions, nobody is better qualified to assist in patent infringement cases than a patent attorney. The provisions of Section 143 Para. 3 German Patent Act thus assist in a very pragmatic way the quality of the parties' pleadings in patent infringement cases.

2.4 Duty of Substantiated and Concentrated Pleading

German civil procedure is also characterized by a number of provisions regarding the parties' pleadings and their treatment by the court.

The parties are enjoined to give substantiated and truthful reasons for taking the legal course chosen by them. They are also obliged to declare themselves comprehensively (substantiatedly and truthfully) to substantial pleading by the opposing party.[9] If they do not satisfactorily meet their obligations, they may be prevented from pleading – particularly on grounds of obstruction or delay of legal processes.[10]

It is thus an important characteristic of German civil procedure and thus also of the patent infringement procedure that as far as possible everything which might interfere with the reaching of an objective decision is cleared away. This means for the infringement court the obligation to prepare fully for any hearings,[11] to bring the dispute as fully as possible to a final decision and then, when the case is ripe for a final decision, to give a final judgement.[12]

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7 Sections 91 *et seq.* German Code of Civil Procedure.
8 Section 308 German Code of Civil Procedure.
9 *Cf.* Section 138 German Code of Civil Procedure.
10 *Cf.* Sections 282, 296 German Code of Civil Procedure.
11 *Cf.* Section 273 German Code of Civil Procedure.
12 *Cf.* Section 300 German Code of Civil Procedure.

It is not the purpose of these considerations to seek a comparison with North American or English patent infringement procedure with their substantial pre-trial procedures (pre-trial discoveries). The differences are, however, obvious. German civil procedure has nothing comparable.

2.5 Existence of Patent Infringement Procedures and Patent Revocation Procedures Side by Side

German infringement procedure is characterized in particular by the dualism of revocation procedures, on the one hand, and patent infringement procedures, on the other.

It is unique not only in Europe but also in the entire world that the judge dealing with an infringement case is bound by the facts of patent grant and is not authorized to question the legal effectiveness of the patent.[13] The judicial examination of legally granted patents is not the task of the infringement court but of the German Federal Patent Court (in first instance) and the German Federal Supreme Court (in the second instance) in a separate revocation procedure. This division of duties between the infringement court, on the one hand, and the German Federal Patent Courts, on the other, has – as the foregoing figures attest – proved to be admirably effective.

This basic setup also results from the German legal and procedural tradition. The German court system is subdivided into a number of court jurisdictions in the area of civil law (civil jurisdiction = ordinary courts), administrative law (administrative jurisdiction), tax law (financial courts) and social law (social jurisdiction). In particular, it is also keeping with German legal tradition that in civil proceedings the civil judge is bound by the facts of an administrative act passed by another authority. This applies, for example, to (civil) traffic accident damages proceedings to the facts of the issue of a driving licence for drivers involved in the accident as well as to the facts of the issued operating licences in connection with the accident vehicles involved. It would be strange if in this connection a civil judge were to ask about the effectiveness of the issue of the driving licence or the vehicle licence. Since patent infringement proceedings, with good reason, have to be heard in civil courts, the same principles also apply to them. The grant of a patent is an administrative act conferring a benefit, that is, substantiating an exclusive right and a right of use.[14] For this solely (in the case of lawful grant) the German Federal Patent Court and the Federal Supreme Court have exclusive examining competence. So long as a patent is formally effective, the infringement court is bound by it (effect of the fact) and must accept the patent as it was granted.[15]

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[13] German Federal Supreme Court (Bundesgerichtshof, BGH) in 2005 GRUR 41, 43 l. col. bottom – *Vacuum Cleaner Pipe (Staubsaugerrohr)*; 2004 GRUR 710, 711 r.col. – *Printing Machine Temperature-Regulating System (Druckmaschinen-Temperierungssystem)*; 2003 GRUR 550 – *Challenging of Judge (Richterablehnung)*; MES, *supra* note 5, at Sec. 81 note 6.

[14] MES, PatG, *supra* note 5, at Sec. 139, note 205.

[15] MES, *id.*; District Court Düsseldorf (Landgericht, LG), 1994 GRUR 509 – *Wheelchair Bicycle (Rollstuhlfahrer).*

The lack of patentability (validity) of a granted patent is for the Defendant therefore no – directly – real objection. Because the examination of the validity of a lawfully granted patent is undertaken only within the scope of the invalidation action under Sections 81 *et seq.* German Patent Act. The Respondent who wants to plead the invalidity of an asserted patent in infringement proceedings must therefore bring a invalidation action at the German Federal Patent Court. He is released from this obligation only if an opposition is still admissible or participation in pending opposition proceedings is possible.[16] Although opposition and invalidation action do not inhibit the legal effects of the patent[17] they do compel the judge dealing with an infringement case in response to a motion for stay of proceedings under Section 148 German Code of Civil Procedure to examine the prospects of success of the invalidation action or the opposition and thus – indirectly – the validity of the patent in issue.

With the assignment of the invalidation action under Section 81 *et seq*. German Patent Act to the German Federal Patent Court the German legislator has again created an instrument which serves for the best possible assessment of patent disputes – here with regard to the validity of the patent. In particular by placing three technical judges[18] and two legally qualified judges, of whom one always presides, at the head of the Revocation Senate of the Supreme Patent Court, it is ensured that the difficult technical and legal questions which can play a part in assessing the validity of a patent can be solved in a proper manner, that is, jointly by technicians and legally qualified judges. In addition, invalidation actions always have – due to their constitutive effect (extinction of the patent in the event that the invalidation action succeeds) – an effect on the public interest.

The link between the invalidation procedure, in the one hand, and the patent infringement procedure, on the other, is established by Section 148 German Code of Civil Procedure. This requirement is worded as follows:

> The court may, if the decision of the case depends wholly or partly on the existence or non-existence of a legal relationship forming the subject of another pending action or is to be determined by an administrative authority, direct that the proceedings be suspended until the other action or a decision is settled by the administrative authority.

German infringement courts quite rarely stay the infringement case under this provision. A stay of patent infringement proceedings is normally only granted if the invalidation action/opposition is very likely successful.[19] This is normally only the

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[16] For all *cf.* Section 81(2), 59(2) Ger. Pat. Act and Articles 99, 105 EPC.

[17] Section 58(1) 3rd Sentence Ger. Pat. Act; Federal Supreme Court (BGH) 1987 GRUR 284 – *Transport Vehicle (Transportfahrzeug)*.

[18] On the technical judge *cf.* Sec. 65 Para. 2 Sentence 2 Ger. Pat. Act; on composition of revocation Senates *cf.* Section 67(2) Ger. Pat. Act.

[19] Federal Supreme Court (Bundesgerichtshof, BGH) 1987 GRUR 284 – *Transport vehicle (Transportfahrzeug)*; District Court Düsseldorf (Landgericht (LG) Düsseldorf) 1979 GRUR 188 – *Flat Roof Drains (Flachdachabläufe)*; similarly Higher District Court Munich (Oberlandesgerich (OLG) Munich) 1990 GRUR 352, 353 l.col. – *Shelf Organisation System (Regal-Ordnungssysteme)*, according to which the expected outcome of a legal remedy must be substantiated.

case if new novelty destroying prior art not yet considered in the examination procedure is asserted by the Defendant in the invalidation/opposition procedure.[20] If merely the lack of inventive step is asserted by the Respondent, a stay under Section 148 German Code of Civil Procedure rarely occurs. However, it cannot be definitely ruled out, either. For this reason restraint is called for, because the assessment of the level of invention (non obviousness) is an evaluative decision, which must not be reached by the infringement court.[21] However, if there is no "reasonable" argument supporting inventiveness of the claimed invention, a stay of the infringement proceedings may be granted.[22]

3. Criticism

The argument against the separatation of the patent infringement procedure, on the one hand, and invalidation procedure, on the other, has always been one (and will continue to be) that it leads to a double (avoidable) work load, because the same question of whether the patent under which rights are asserted is valid, is examined by different judicial bodies in two separate procedures. This objection seems reasonable only at a first glance.

Invalidation (or opposition) proceedings against the validity of a patent has a totally different objective than the examination of suspension under Section 148 German Code of Civil Procedure whether invalidation (or opposition) proceedings will with sufficient probability result in the extinction of the patent asserted in the infringement proceedings. Invalidation (opposition) proceedings are aimed at determining the validity of the patent with effect for and against all (for the public at large), so that a decision by which the patent is wholly or partly extinguished (revoked), because invalid, has a constitutive effect *inter omnes* and thus for everybody. By contrast, the assessment of suspension of an action on grounds of pending opposition or invalidation proceedings is a question that can be decided by way of procedural free evidence ("Freibeweis")[23] within the scope of suspension discretion under Section 148 German Code of Civil Procedure with effect only between the parties (*"inter partes"*).

It is thus clear that with regard to the validity of an asserted patent, the view of the judge dealing with an infringement case differs completely from that of the judge in invalidation proceedings or of the judicial body in opposition proceedings against the patent. Whereas there the entire state of the art referred to has to be looked into in the greatest detail before an appropriate verdict can be reached, it is

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[20] *Cf.* MES, *supra* note 5, at Sec. 139, note 206.

[21] Federal Supreme Court (Bundesberichtshof, BGH) 1987 GRUR 284 – *Transport Vehicle (Transportfahrzeug)*; Higher District Court Düsseldorf (OLG) in est. practice, *e.g.* 1997 Mitt. 257, 258 – *Steinknacker.*

[22] Federal Supreme Court (Bundesgerichtshof, BGH) 1987 GRUR 284 r. col. top – *Transport Vehicle (Transportfahrzeug)*; District Court Düsseldorf (Landgericht (LG) Düsseldorf), 1995 Blatt für Patent-, Marken- und Zeichenwesen BlfPMZ) 121.

[23] Higher District Court Düsseldorf (Oberlandesgericht (OLG) Düsseldorf) 1979 GRUR 636, 367 – *Ventilanbohrvorrichtung*; *c.f.* MES, *supra* note 5, Sec. 139, note 212.

merely the task of the judge dealing with the infringement case to establish whether there is any (however it is to be assessed) probability that in the invalidation or opposition proceedings the patent will be declared invalid or revoked. It may be freely stated that – at least in patent infringement proceedings in Düsseldorf – exceedingly high degree of accuracy is to be observed in the assessments of judges dealing with infringement cases.[24]

Recently the above-described dualism of invalidation proceedings, on the one hand, and patent infringement proceedings, on the other hand, have been called into question[25]. It is being suggested that it be considered whether – particularly in view of any possibility that suggestions might be entertained with regard to EPLA – invalidation objections might also be admitted in patent infringement proceedings.

The background to these discussions is also the observation that the Xth Civil Senate of the Federal Supreme Court, which is responsible for appeal proceedings against judgements of the German Federal Patent Court, is overburdened. This overburdening is resulting in what are felt to be unconscionably long appeal procedure times of up to four years in invalidation patent cases at the present time. The reason given for the overburdening is the large number of appeals in invalidation patent proceedings and the practice of the Xth Civil Senate of the Federal Supreme Court of appointing an expert immediately after receiving the grounds for the appeal, sending him or her the files and setting him/her specific questions of evidence to answer.[26]

Anyone who has experienced oral proceedings in a case of appeal against patent revocation before the Federal Supreme Court cannot but unreservedly admire the care with which the substance of the case is prepared, gone into and mastered as well as the preparation for questioning the expert which regularly dominates the proceedings through both the presiding judge and the reporter. The assertion that obtaining an expert report for the Federal Supreme Court must be a dilatory act – as is now being discussed – does not seem very convincing. Obtaining an expert report in good time by the Federal Supreme Court is based on a suggestion by *Hesse*[27] and was aimed at speeding up the appeal procedure in invalidation patent cases before the Federal Supreme Court. In particular, obtaining an expert witness report in good time should help to lighten the burden on the reportedly overburdened Xth Civil Senate of the Federal Supreme Court.[28] The court expert witness is supposed to help

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[24] In my personal experience – although I have no figures to support this – it is in substantially less than 5% of patent infringement cases that the District Court's assessment with regard to the validity of a patent has deviated from the final decision of the German Federal Patent Court or the Federal Supreme Court.

[25] *Cf. e.g.* the suggestion of the President of the Federal Supreme Court on the introduction of the defense for revocation into the patent infringement procedure, letter of January 25, 2007; discussed in "Stellungnahme des Deutschen Anwaltvereins durch den Ausschuss für Geistiges Eigentum, Stellungnahme Nr. 26/07, available at <www.anwaltverein.de> (as of March 2008)

[26] The formulation of these questions of evidence can be found in JESTAED, Die erfinderische Tätigkeit in der neueren Rechtsprechung des Bundesgerichtshofs, 2001 GRUR 939, 942.

[27] HESSE, Die Beschleunigung des Nichtigkeits-Berufungsverfahrens, 1977 Mitteilungen der deutschen Patentanwälte (Mitt.) 45

[28] *Cf.* HESSE, *supra*, 49 r. col. bottom.

clarify the facts of the case. In particular it is his task to impart to the Federal Supreme Court his expert knowledge and skills and the way in which the expert aims to overcome the technical problems of his area of speciality.[29] It is particularly not the task of the court expert witness to assess whether in his expert opinion the solution according to the invention was obvious to the expert. That is the task of the Federal Supreme Court alone.[30]

In the overwhelming majority of cases the court expert witness's report is also presented within a period of six to nine months. In so far as the need for the court expert witness's expert knowledge and thus a possible concentration on a relative small number of repeatedly consulted expert witnesses give rise to bottlenecks, a start should be made here. The obtaining of an expert witness report cannot be a reason for the amount of time taken up with appeal proceedings.

The Xth Civil Senate of the Federal Supreme Court, which is solely responsible for patent revocation proceedings, naturally has only a limited number of hearing days. It is also to be observed that in patent revocation cases because of the regular searching oral procedure and the comprehensive questioning of the court expert witness by the judges of the Xth Civil Senate only one case can be settled per hearing day.[31] At present the workload of the Xth Civil Senate of the Federal Supreme Court consists of about sixty newly lodged appeals a year, while the number of settlements year for year is in the region of fifty. Of these again fifteen to twenty are judgements.[32] It must not be forgotten that the Xth Civil Senate of the Federal Supreme Court is not only the instance of review in patent revocation cases but at the same time also the instance of appeal against judgements of the higher District Courts in patent infringement proceedings.[33]

As well as admission of the invalidation objection in infringement proceedings, possible ways of reducing the work load of the Federal Supreme Court in patent revocation cases, such as changing the appeal procedure into a (mere) review procedure (restricted to questions of law), the creation of a further revocation Senate and/

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[29] Federal Supreme Court (Bundesgerichtshof, BGH) 2004 GRUR 411 – *Slide Holder (Diabehältnis)*; MES, Ger. Pat. Act., *supra* note 5, at Sec. 115, note 1.

[30] Federal Supreme Court (Bundesgerichtshof, BGH) 2004 GRUR 411 – *Slide Holder (Diabehältnis)*; MES, *supra* note 5, at Sec. 115, note 1.

[31] With regard to this point, I have not investigated how many hearing days are available at the Xth Civil Senate of the Federal Supreme Court per year and whether it is possible to increase the number of hearing days available.

[32] The following overview is relevant:

	2001	2002	2003	2004	2005	2006
Newly filed appeals	54	63	45	62	62	60
Settlements	59	45	55	47	50	52
– of which judgements	21	20	21	19	14	16
Toptal still pending	131	149	139	154	166	174

available at <www.bundesgerichtshof.de> (as of March 2008).

[33] The figures of interest relate to reviews and appeals against petitions of non-admissibility filed at the Xth Civil Senate of the Federal Supreme Court: 2001 203, 2002 218, 2003 146, 2004 131, 2005 115, 2006 88, available at <www.bundesgerichtshof.de> (as of March 2008).

or limiting the possibility of bringing in new facts are being discussed.[34] Besides these very fundamental measures, there may be a simpler solution: it should be considered whether the X^th Civil Senate should be relieved of areas of the law and competences with which it is burdened at present. The Xth Civil Senate under the business assignment schedule of the Federal Supreme Court continues to be responsible for reviews and appeals against petitions of non-admissibility in the area of contracts for services (where the III^rd, VI^th or VII^th Civil Senate is not competent), in the area of travel and passenger transport contracts, in connection with legal actions relating to the contract-awarding procedures of contracting public authorities and in relation to donations and endowments where the II^nd Civil Senate is not competent. According to Federal Supreme Court 2006 statistics the last-mentioned Senates account for a total of about sixty-three cases, while about eighty-five cases are pending. The X^th Civil Senate could be relieved of these responsibilities. The capacity thus made available could be used for patent revocation proceedings.

To put it quite plainly, the last thing the author wants is to give even the slightest impression that all possible ways of relieving the judges of the X^th Civil Senate of the Federal Supreme Court of as much work as possible, particularly that relating to patent revocation procedures, should not be considered. Nevertheless, it does not seem appropriate – and that is the point being made here – to weaken a system which has been tried and tested over decades by transforming it into something which has not yet been tried and tested, namely, the admission of the defense for revocation in the patent infringement process.

4. Outlook

It is often asserted that with the EPLA and the enforcement of the EPLA the German patent infringement procedure will be decisively changed. Because the EPLA provides for admitting into the infringement procedure the defense for revocation with effect (only) *"inter partes"* and furthermore for enabling a invalidation counterclaim directly in the infringement procedure.

Whether the EPLA really can be realized is at present highly questionable. Regardless of the realization of the EPLA, it should be mentioned that the EPLA represents a compromise solution at a European level. This compromise solution is, from a German point of view, not undubitably the best. The EPLA should therefore not be a reason for admitting the defense for revocation to the German patent infringement procedure (in connection with German national patents).

Whether then, with the introduction of the EPLA, a system which competes with the German patent infringement procedure in its present form will win through, that namely German national patents will be enforced in accordance with existing regulations relating to the German patent infringement procedure and, if necessary, the German national parts of European patents in a procedure framed in compliance with the EPLA is by no means the worst solution. Were this to come about, there

[34] *Cf.* Statement of the German Attorneys' Association (Deutscher Anwaltverein) Nr. 26/07 zu II 2 (*Cf.* also *supra*, note 25).

would in any case be a fair and reasonable competitive situation between the EPLA, on the one side, and the existing German patent infringement procedure on the other. It seems likely that persons looking for patent protection will seek out the patent infringement procedure which yields a fair and reasonable result speedily and economically. The existing patent infringement procedure has a real chance of ultimately proving itself to be the more advantageous.

Enforcement of Unfair Competition Law by Notice of Violation, Rights of Consumers and Public Authorities – Comparative Evaluation of the German Status Quo

Thomas M.J. Möllers

1. Introduction

Joseph Straus has devoted his entire professional life to the protection of intellectual property, above all the protection of patent rights. He is the father of the Munich Intellectual Property Law Center (MIPLC) – an institution, whose Master of Intellectual Property Law Program has developed into one of the foremost education programs for students from all over the world.[1] Some of its graduates are now pursuing their doctorate degrees.[2] As a member of the Managing Board, it has been my pleasure to have been allowed to help with the development of the center.

Enforcing intellectual property law[3] and unfair competition law is a current issue, affecting not only the People's Republic of China, but also Europe. The European legislator reacted and adopted a directive on the enforcement of intellectual property rights[4]. However, a corresponding directive for the enforcement of unfair competition law has yet to be brought forward. Andreas Heinemann and I have been editors of a project analyzing the law of fifteen Member States of the European Union on a comparative law basis. The aim of the project was to examine the advantages and the disadvantages of the different methods of enforcement of competition law.[5] The following article is based on this study. Some of the study's conclusions will be delved into further to rebut, with the help of a comparative law perspective, assertions that have been made in a national context.

All modern legal systems offer protection against unfair competition, *i.e.* against 'any act of competition contrary to honest practices in industrial or commercial matters,'[6] in short against 'dirty tricks.'[7] More than one hundred years ago, the law of unfair competition was already dealt with in one of the great international treaties

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1 For the Munich Intellectual Property Law Center *see* <www.miplc.com>.

2 *Cf.* Studies of the Munich Intellectual Property Law Center (MIPLC) published by Nomos Verlag in Baden-Baden.

3 Many professors from the MIPLC Board, for example, took part in the 5th Shanghai International IP Forum in October 2007.

4 *Cf.* Directive 2004/48/EC of 29 April 2004 on the enforcement of intellectual property rights, [2004] OJ L 157, p. 45, corrigendum [2004] OJ L 195, p. 16.

5 The project of the Common Core of European Private Law is published as MÖLLERS/HEINEMANN, The Enforcement of Competition Law in Europe (2007). For details of the Common Core of European Private Law *cf.* BUSSANI/MATTEI, 3 Columbia J. Eur. L. 339 *et seq.* (1997); *see* <http://www.jus.unitn.it/dsg/common-core>.

6 *See* Art. 10bis PC.

7 CHAFFEE, Unfair Competition, 53 HARV. L. REV. 1289 (1940).

on the protection of intellectual property: The Paris Convention for the Protection of Industrial Property of 1883.[8] In the Paris Convention, which has been adhered to by more than 160 states thus far (among them all Member States of the EU), each signatory nation binds itself to assure 'effective protection against unfair competition' to the nationals of the other parties of the treaty.[9]

In most Member States, the law of unfair competition is considered to be a separate area of law. In Germany, a blanket clause was introduced to the Act against Unfair Competition[10] in 1907 because the courts refused to apply the general tort claim in Sec. 823 German Civil Code[11] to curb acts of unfair competition.[12] Many countries later adopted Germany's[13] 'big blanket clause' as a role model. It can be found in the laws of Austria,[14] Denmark,[15] Finland,[16] Sweden,[17] Belgium,[18] Luxembourg,[19] Spain,[20] Portugal,[21] Greece[22] and Switzerland.[23] Such a blanket clause allows the courts to specify the remedies against acts of unfair competition. For the last one hundred years, this has been done by developing and defining typical cases of unfair competition.[24] In France,[25] Belgium[26] and the Netherlands,[27] cases of unfair competition are solved by applying the general civil law provision for torts.

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[8] For further information *see* <www.wipo.int/treaties/en/index.html>.

[9] *See* Art. 10bis PC.

[10] Gesetz gegen unlauteren Wettbewerb (UWG).

[11] Bürgerliches Gesetzbuch (BGB).

[12] The Supreme Court of the German Reich reasoned that the legislation had established trademark law and therefore only those affected by it had to be protected against unfair competition, 3 RGZ 67, 68 – *Apollinaris*; 18 RGZ 93, 99 – *Van Houten*; 20 RGZ 71, 75 – *Benecke*.

[13] Former Sec. 1 German Act against Unfair Competition (now Sec. 3). In Germany, the blanket clause has been broken down into a so-called 'small' blanket clause alongside the codification of typical cases in Sec. 4 to 7.

[14] Sec. 1 Act against Unfair Competition.

[15] Sec. 1 Marketing Practices Act (Markedsføringslov, MFL).

[16] Chap. 2 1 para. 1 § Consumer Protection Act (Kuluttajansuojalaki, KSL) and 1 § Unfair Trade Practices Act (Laki sopimatoomasta menettelysä elinkeinotoiminnassa, SopMenL).

[17] Sec. 4 para. 1 Marketing Practices Act (Marknadsföringslagen; MFL).

[18] Arts. 93, 94 Trade Practices Act (Loi sur les pratiques de commerce et sur l'information et la protection; LPC).

[19] Art. 16 Loi du 27 novembre 1986 réglementant certaines pratiques commerciales et sanctionnant la concurrence déloyale.

[20] Art. 5 Ley Penal Cambiaria, LPC, Art. 6 b General Advertising Act (Ley 34/1988 General de Publicidad, LGP).

[21] Former Art. 260 Industrial Property Code (Código de Propriedade Industrial, CPI).

[22] Art. 1 Law of Unfair Competition.

[23] Art. 2 Law against Unfair Competition.

[24] One can find examples in BAUMBACH/HEFERMEHL, Wettbewerbsrecht (22nd ed. 2001), on several hundred pages. These annotations will clearly change because of the regulation of typical cases in Sec. 4 UWG. In the new edition the annotations to Sec. 3 are reduced to 20 pages, *cf.* KÖHLER, in: HEFERMEHL/KÖHLER/BORNKAMM, Wettbewerbsrecht, at Sec. 3 (24th ed. 2006).

[25] Art. 1382 Code civil.

[26] Art. 93 *et seq*. Loi sur les pratiques du commerce et sur l'information et la protection du consommateur.

[27] Art. 6:162 Dutch Civil Code (Burgerlijke Wetboek, BW).

Italy has introduced a separate blanket clause for unfair competition in its *Codice Civile*.[28] Meanwhile, a blanket clause has also been introduced at the European level.[29] England and Ireland do not have a codification or a blanket clause covering acts of unfair competition. Both legal systems only recognize a series of individual provisions dealing with certain acts of unfair competition (*e.g.* 'passing off' or 'libel and slander').[30]

One, however, must be aware that even in countries with one big blanket clause the similarities in the law of unfair competition are rather limited. Only a very few Member States have their own codification of unfair competition law (Germany, Austria, Sweden, and Denmark). Even in these states, general civil and criminal law provisions have to supplement the codification. In most other states, the law of unfair competition is spread over several acts. Some countries restrict the scope of unfair competition law to widen the scope of consumer protection law. For example, in the Anglo-American countries of the United Kingdom and U.S. as well as the French legal system (France,[31] Belgium, Italy and the Netherlands) competitors are protected by some limited tort provisions, while consumers are protected by special codes on consumer protection.

2. European Law Against Unfair Competition

2.1 Directives and Recommendations

A common European law against unfair competition does not exist. However, three directives have had a strong impact on the law of unfair competition. The Misleading Advertising Directive 84/450/EEC, sets forth rules regarding misleading advertisements but only sets a minimum standard of harmonization.[32] Therefore, in this area, the law of the Member States still has the most important relevance. This directive was supplemented by the Comparative Advertising Directive 97/55/EC. It must be noted that the latter does not allow for a deviation by national provisions.[33] These directives protect the interests of consumers as well as competitors and the

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[28] Art. 2598 no. 3 Codice civile.

[29] *See* Art. 5 of Directive 2005/29/EC of 11 May 2005 of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the Internal Market and amending Directives 84/450/EEC, 97/7/EC and 98/27/EC, [2005] OJ L 149, p. 22.

[30] WEATHERILL, United Kingdom, in: SCHULZE/SCHULTE-NÖLKE, Analysis of National Fairness Laws Aimed at Protecting Consumers in Relation to Precontractual Commercial Practices and the Handling of Consumer Complaints by Business, at I.2b) (2003).

[31] MONFORT, France, in: SCHULZE/SCHULTE-NÖLKE, *id.*, at 1.

[32] Art. 7(1) Directive 84/450/EEC of 10 September 1984 relating to the approximation of the laws, regulations and administrative provisions of the Member States concerning misleading advertising, [1984] OJ L 250, p. 17.

[33] Art. 7(2) Directive 84/450/EEC, amended by Directive 97/55/EC of 6 June 1997, [1997] OJ L 290, p. 18, corrected by Corrigendum [1997] OJ L 194, p. 54. *See* also C-44/01, *Pippig v. Hartlauer*, [2003] ECR I-3095, paras 43 *et seq*. On the so-called full harmonisation which forbids Member States to enact deviating national provisions, *see* CRAIG/DE BURCA, EU Law, at 3.2.(c) (3rd ed. 2003).

general public (Art. 4(1)). The directive and its supplement are combined in their current version under Directive 2006/114/EC.[34] In 1998, the Product Price Directive 98/6/EC[35] was introduced. The Injunction Directive 98/27/EC[36] regulates the ability of consumer associations to sue. It should be noted that by now Directive 2005/29/EC concerning unfair business to consumer commercial practices has been passed.[37]

On a final note, the Out-of-Court Settlement Recommendations 98/257/EC[38] and 2001/310/EC[39] are of particular importance. Although recommendations are not binding,[40] they are nevertheless of practical relevance because Member States are apt to adhere to them. Recommendation 98/257/EC defines the out-of-court settlement as the active intervention by a third party who proposes or imposes a solution.[41] Recommendation 2001/310/EC extends this application to independent institutions which induce the parties to reach a consensus. Both recommendations name independence, transparency and efficiency as guiding principles.

2.2 Enforcement

In its decisions the ECJ has always emphasized that the enforcement of duties based on European law has to be 'effective, proportional and act as a deterrent.'[42] The Misleading Advertising Directive 84/450/EEC includes provisions concerning enforcement. Persons *and* organisations having a legitimate interest in prohibiting misleading advertising shall be able to take legal action.[43] This directive introduces a right to sue for associations which can show a legitimate interest.[44] The Member

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[34] Directive 2006/114/EC of 12 December 2006 concerning misleading and comparative advertising (codified version), [2006] OJ L 376, p. 21.

[35] Directive 98/6/EC of 16 February 1998 on consumer protection in the indication of the prices of products offered to consumers, [1998] OJ L 80, p. 27.

[36] Directive 98/27/EC of 19 May 1998 on injunctions for the protection of consumers' interests, [1998] OJ L 166, p. 51; for an analysis of the first case under this directive *cf.* ROTT/VON DER ROPP, Stand der grenzüberschreitenden Unterlassungsklage in Europa, 2004 Zeitschrift für Zivilprozess International (ZZPINT) 3.

[37] Directive 2005/29/EC of 11 May 2005 concerning unfair business-to-consumer commercial practices in the Internal Market and amending directives 84/450/EEC, 97/7/EC and 98/27/EC, [1995] OJ L 149, p. 22.

[38] 98/257/EC: Commission Recommendation of 30 March 1998 on the principles applicable to the bodies responsible for out-of-court settlement of consumer disputes, [1998] OJ L 115, p. 31.

[39] 2001/310/EC: Commission Recommendation of 4 April 2001 on the principles for out-of-court bodies involved in the consensual resolution on consumer disputes (notified under document number COM(2001) 1016), [2001] OJ L 109, p. 56.

[40] Art. 249(3) EC.

[41] The warning of the injured person against the infringer thus does not belong to it, *cf.* para. 9 of Recommendation 2001/310/EC.

[42] Case 68/88, *Commission v. Greece*, [1989] ECR I-2965, para. 22; Case C-326/88, *Hansen*, [1989] ECR I-2911, para. 17. *Cf.* also the earlier decision in Case 14/83, *von Colson*, [1984] ECR 1891, paras 23-28.

[43] Art. 4(1)(2).

[44] BEATER, Europäisches Recht gegen den unlauteren Wettbewerb – Ansatzpunkte, Grundlagen, Entwicklung, Erforderlichkeit, 2003 Zeitschrift für Europäisches Privatrecht (ZEUP) 11, 36.

States are free to decide whether such legal action shall be pursued before the courts or before administrative authorities.[45] The directive includes further details concerning the regulation of misleading advertising by administrative authorities. For instance, administrative authorities have to be impartial and vested with appropriate powers to exercise their control.[46] Decisions by administrative authorities have to be reasoned.[47] Judicial review must be available for improper or unreasonable exercise of power or improper or unreasonable failure to exercise the said power.[48] Finally, the directive allows for the introduction of self-control mechanisms. However, such methods can only be introduced in addition to legal action in front of the courts or administrative authorities.[49]

The remedies of Arts. 11 to 13 of Unfair Commercial Practices Directive 2005/29/EC are nearly identical to those of Arts. 4 to 6 of the Misleading and Comparative Advertising Directive 84/450/EEC. Voluntary self-policing by means of rules of conduct is mentioned in Art. 10. In general terms, Art. 13 demands that remedies be effective, proportionate and dissuasive. As long as these requirements are met the Member States are left to enact and enforce these penalties.[50] Regulation (EC) No. 2006/2004 on Consumer Protection Cooperation is of particular importance.[51] It is based on the assumption that deficiencies in the enforcement of the law of unfair competition and of consumer protection exist.[52] For this reason the regulation requires the Member States to institute a public authority competent to take actions against cross-border infringements.[53] Authorities from other Member States are then able to address their complaints to this public authority. This regulation applies to many consumer protection directives.[54] In contrast to Directive 84/450/EEC, respectively 98/27/EC, the Member States are bound to introduce a public authority that is responsible for enforcement of consumer complaints only if public authority does not exists in the Member States in this area.[55] The regulation has been in force since October 2004; it is applicable starting December 29, 2005.[56]

Only *minimum harmonization* has taken place concerning plaintiffs, authorities competent to impose sanctions, and the burden of proof. Either the implementation is left to national law or, due to the different legal traditions in the Member States, legal proceedings have not been harmonized. The directives place courts and administrative authorities on an equal footing. In addition, voluntary self-policing is possible. Euphemistically this could be called 'an elastic treatment of enforce-

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[45] Art. 4(1)(2) and (3). Enforcement is now regulated in Arts. 5 and 6 of Directive 2006/114/EC.
[46] Art. 4(3)(a) and (b).
[47] Art. 4(3)(2) 1st sentence.
[48] Art. 4(3)(2) 2nd sentence.
[49] Art. 5.
[50] *Cf.* explicitly recitals 22 and 9 of Directive 2005/29/EC.
[51] *Cf.* 2nd reason for proposal.
[52] Green Paper on EU Consumer Protection, COM(2001) 531 final; Follow-up Communication to the Green paper on Consumer Protection, COM(2002) 289 final.
[53] *Cf.* Art. 3(b); Art. 4(6) of Regulation (EC) No. 2006/2004.
[54] It is therefore comparable with the Injunction Directive 98/26/EC.
[55] Art. 4(1) of Regulation 2005/2006.
[56] *Cf.* Art. 22 of Regulation (EC) No. 2006/2004.

ment'.[57] In reality, as is the case with the substantive provisions of the law of unfair competition, remedies are polymorphic and unsystematically regulated.[58] Taking this into consideration, it is astonishing that there have not been any detailed proposals up to now for further harmonizing unfair competition remedies.[59]

2.3 Shortcomings in the Enforcement against Unfair Advertisement

In everyday life it is common to be without protection against unfair measures: deceptive sweepstakes, direct marketing of bogus slimming agents and deceptive advertising for summer resorts are only some examples. Sweepstakes conveying the idea that the addressee has already won and only has to invest a small handling fee, wholehearted advertising for panaceas that promise to reduce the gasoline consumption by forty percent or make hair grow again are examples taken from everyday life.[60] Lately, more and more people are arguing that the system of remedies instituted in Arts. 4 to 6 Misleading and Comparative Advertising Directive 84/450/EEC is 'insufficient'. Because of the different bodies that are competent to deal with infringements, legal scholars have argued that in some Member States sufficient legal protection is not available. This has been explicitly stated for English law because the Office of Fair Trading hardly ever brings proceeding against infringements.[61]

Another example: in Germany, consumers have been flooded by unwanted fax machine messages over the last few years; cold-calling is widespread and the abuse of 0190-numbers[62] is frequent. Even the Federal Government conceded, when it amended the German Unfair Competition Act in 2004, that some minor infringements will be left unsanctioned.[63] The German consumers' associations estimate

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[57] See the comparative law study on behalf of the Ministery of Justice, July 2001: SCHRICKER/HENNIG-BODEWIG, Elemente einer Harmonisierung des Rechts des unlauteren Wettbewerbs in der Europäischen Union, 2001 Wettbewerb in Recht und Praxis (WRP) 1367, 1369 and 1375; KÖHLER/LETTL, Das geltende europäische Lauterkeitsrecht, der Vorschlag für eine EG-Richtlinie über unlautere Geschäftspraktiken und die UWG-Reform, 2002 Wettbewerb in Recht und Praxis (WRP) 1019, 1047.

[58] BEATER, Unlauterer Wettbewerb, Sec. 8 note 104 (2002).

[59] A brief overview is available from SCHULZE/SCHULTE-NÖLKE (ed.), *supra* note 30; MAXEINER/SCHOTTHÖFER (eds.), Advertising Law in Europe and North America (2nd ed. 1999); BULTMANN ET. AL., The Feasibility of a general legislative framework on fair trading, Proposal for a general legislative framework on fair trading, (2000). Remedies are not mentioned in MICKLITZ/KEßLER (ed.), Marketing Practices Regulation and Consumer Protection in the EC Member States and the US (2002) and HENNING-BODEWIG, in: HARTE-HENNING, UWG, Einl E. (2004).

[60] Green Paper on EU Consumer Protection, COM(2001) 531 final, at 2.1.; GLÖCKNER, in: HARTE-HENNING, *id.*, at Einl B note 203.

[61] SCHRICKER/HENNIG-BODEWIG, *supra* note 57, at 1375. Unfortunately the authors do not follow up their statement.

[62] The German equivalent to 1-900 numbers.

[63] Begr. RegE (legislative comments), UWG, Bundestags-Drucksache (BT-Drs.) 15/1487, on Sec. 10, p. 23.

that they are able to record up to 80 percent of the relevant cases;[64] this figure is likely too optimistic. The widely held view that in Germany infringements of unfair competition law will always be stopped by competitors or by associations is, at least in cases of nuisance or misleading advertising, not completely true.

The principle that 'an infringement of unfair competition law reaps rewards'[65] proves true. All legal harmonization is *l'art pour l'art* if it remains 'law in the books'[66] that only pretends to harmonize this area of law. Actions for an injunction only stop illegal conduct for the future without providing any remedy for the violation that has already occurred.[67] This indicates that it will be worthwhile to examine whether further remedies should be introduced.[68] In the following, the question whether in addition to competitors and consumers' associations, consumers or government agencies should be awarded a cause of action will be discussed.

3. Enforcement by Third Parties

3.1 Competitors, Notice of Violation and Attorney Fees

A number of Member States as well as the U.S. recognize the 'notice of violation.' Its purpose is to make competitors aware of their infringement. Potential defendants, who continue contested behavior after receiving such a notice, risk being held liable for intentional infringement. The notice of violation plays a central role in German advertising law (*Abmahnung*). In Denmark, the plaintiff specifying her rights (or the rights being infringed) in a notice of violation is included in the courts assessment of whether or not there is sufficient justification for issuing an injunction. In France, it is not legally necessary to first admonish the competitor. Nevertheless it is general practice to do so prior to serving the competitor with a *mise en demeure*, because it has the advantage of avoiding legal action or at least assisting to prove bad faith. In Italy, violators may also be admonished in advance by the other party prior to court proceedings being initiated. However, prior warnings are not binding, and have no effect on subsequent court proceedings. In Sweden as well as some states in the U.S., a notice helps to prove the intentional behavior of the infringer. In contrast, the U.S. Federal Rules of Civil Procedure do not make such a

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[64] Statement of the Federal Association of Consumers' Assoctions (Verbraucherzentrale Bundesverband e.V.) before the Committee on Legal Affairs of 19 February 2004; *cf.* <www.thomas-moellers.de/materialien>.

[65] *Cf.* SCHRICKER, Zur Reform des Gesetzes gegen unlauteren Wettbewerb: Schadensersatzansprüche der Abnehmer und Rücktritt vom Vertrag bei irreführender und unlauterer Werbung, 1979 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 1; SACK, Der Gewinnabschöpfungsanspruch von Verbänden in der geplanten UWG-Novelle, 2003 Wettbewerb in Recht und Praxis (WRP) 549, 554.

[66] POUND, Law in Books and Law in Action, 44 AM. L. REV. 12 (1910). The Commission also emphasizes that clear and reliable provisions have to be enforced effectively; Green Paper on EU Consumer Protection, COM(2001) 531 final, at 5.

[67] Begr. RegE (legislative comments), UWG, Bundestags-Drucksache (BT-Drs.) 15/1487, for Sec. 10 p. 23.

[68] MÖLLERS/HEINEMANN, *supra* note 5.

notice a prerequisite for bringing a claim. However, in eight states a notice letter[69] is necessary. These provisions aim at discouraging litigation and encouraging out of court settlement.[70] A notice of violation is also helpful in proving bad faith by the defendant. In Germany, Denmark and Spain, whether the affected party has served a notice of violation is taken into consideration in determining whether they can recover legal costs. However, in the European Community recovery of costs for a notice of violation is limited to just these countries.[71]

In the U.S., if the violation resulted in damages, the notice of violation is usually accompanied by a proposal for monetary settlement.[72] Awarding legal costs encourages parties who feel aggrieved by competitors' advertising to consult attorneys and commence legal action.

3.2 Private Consumers

Numerous[73] countries, for example Denmark,[74] Spain,[75] Italy, and Greece, have allowed private consumers to bring legal action under a consumer rights theory. The consumer's right of claim in Denmark is surprising because their public law regulation by the consumer ombudsman is already highly developed. In addition, an individual right of claim exists in Switzerland.[76] Under Belgian[77] and Dutch law[78] the consumer can bring claims for an injunction and damages. The right of claim for consumers in France is extensive due to the special protection provided by the French Consumer Code. It is exercised mostly in cases of illegal advertising. In Italy, the consumer may have a cause of action under the general application of consumers' rights. It states that consumers have, *inter alia*, the fundamental right to adequate information and fair advertising, as well as the right to fairness, transparency, and equity in contractual relationships concerning goods and services.[79]

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[69] Alabama, California, Georgia, Indiana, Maine, Massachusetts, Texas, Wyoming.

[70] *Barnard v. Mecom*, 650 S.W.2d 123, 127 (Tex. App. Corpus Christi 1983); PRIDGEN, Consumer Protection and the Law, 314 *et seq.* (2003).

[71] JENNES/SCHOTTHÖFER, Germany, in: MAXEINER/SCHOTTHÖFER, *supra* note 59, at 203.

[72] The California Governor Schwarzenegger's lawyers have stated that they will send a 'reminder,' if a picture or the name of Schwarzenegger is used for illegal advertising, *e.g.* the beer brand 'Governator Ale,' showing a body builder, LA TIMES 30 March 2004, A 1, 19.

[73] Slightly misleading in this respect, BEATER, *supra* note 58, at Sec. 28 notes 6, who asserts an exclusive right for consumers in Switzerland to sue.

[74] Sec. 19(1) Marketing Practices Act (Markedsføringslov).

[75] Art. 19 Unfair Competition Act (Ley 3/1991 de Competencia Desleal, LCD) and Art. 27 General Advertising Act (Ley 34/1988 General de Publicidad, LGP).

[76] Art. 10(1) Act against Unfair Competition: consumers are entitled to actions according to art. 9, if their economic interests are threatened by unfair competition. *See* KNAAK/RITSCHER, Schweiz, in: SCHRICKER, Recht der Werbung in Europa, notes 322 *et seq.* (1996).

[77] Art. 94 Belgian Trade Practices Act as well as Art. 1382 Code civil. *See* HENNING-BODEWIG, Belgien, in: SCHRICKER, Werbung in Europa, *id.,* at notes 515 *et seq.*

[78] According to the tort law general clause Art. 6:162 Civil Code (Burgerlijk Wetboek); HENNING-BODEWIG/VERKADE/QUAEDVLIEG, Niederlande, in: SCHRICKER, Werbung in Europa, *id.,* at note 619.

[79] Art. 2(2)(c) Decreto legislativo 206/2005.

A different, more moderate approach is taken by states which consider only some competition laws to be protective tort laws. Damages can then be claimed under general tort law, thus providing an implied right of action to the consumer. For states such as France, Italy, Belgium and the Netherlands, which under their civil law have a broad general clause in tort that integrates unfair competition law at least in part into general tort law, discussion on the protective extent of unfair competition laws is obviously unknown. In contrast, in some Member States, for example the United Kingdom, Poland and Hungary, consumers do not have a right of claim. In Germany, a general right of claim for consumers was hotly debated some thirty years ago,[80] but could not be agreed upon.[81]

3.3 Public Authorities

With regard to governance by public authorities, three different models can be distinguished. Only a few Member States do not have regulation by public authorities. These include Germany, Luxembourg, Austria and the Netherlands among others.[82] The majority of States have established state authorities for the regulation of infringements of unfair competition law. These include most importantly the Nordic states Sweden, Finland and Denmark, with their consumer ombudsman. In the field of unfair competition in Sweden, a public consumer agency, *Konsumentverket*, ensures that public policy is pursued for consumers. One of the responsibilities of the authority is to make sure that the consumers have a strong position on the market. The director general for this consumer authority has another function as well, that of the Consumer Ombudsman. He or she represents consumer interests in relation to undertakings and pursues legal action in the consumers' interest. The Consumer Ombudsman may bring a claim for an injunction or a disclosure order. Moreover, the Consumer Ombudsman has, according to Sec. 39 Act on Marketing,[83] the primary competence to proceed on administrative fines.

Finally, in a number of Member States, public law does not necessarily dominate, but does apply alongside civil law procedures. This is found in Poland, England, France, Italy, Spain, Portugal, as well as, outside the EU, in the U.S. and in Switzerland. Poland has a president of the *Urząd Ochrony Konkrencji I Konsumentów* (Office for Competition and Consumer Protection) and a consumer ombudsman. Both have a right of claim pursuant to Arts. 19.1 no.3 and 4 Polish Act on Fighting Unfair Competition.[84] In England, Part II of the Fair Trading Act 1973 created the office of the Director General of Fair Trading, and gave that office the right to issue orders dealing with particular consumer trade practices that may, from time to time, raise concern. In previous years, however, only three such orders,

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[80] *See* the evidence in BEATER, *supra* note 58, at § 28 notes 6.

[81] *See* HEFERMEHL/KÖHLER/BORNKAMM, *supra* note 24, § 1 note 34; MÖLLERS, 168 ZEITSCHRIFT FÜR DAS GESAMTE HANDELSRECHT (ZHR) 225, 229 (2004).

[82] Regulation Proposal on consumer protection cooperation, COM(2003), 433 final, at 3.1.2.

[83] Marknadsföringslagen (MFL).

[84] Ustawa o zwalczaniu nieuczciwej konkurencji.

which have been of limited significance, were handed down.[85] The possibility under Part III to hand down orders against individual rogue traders in cases of persistent conduct which is unfair and detrimental to the consumer was only of limited success. In practice this was only utilized if the trader engaged in unlawful conduct under existing provisions of civil or criminal law.[86]

In France, the intervention of the state is limited by the application of the *Code de la consommation*. However this is a typical criminal proceeding. In Italy, the powers of the *Autorità Garante della Concorrenza e del Mercato* stem from Decreto legislativo (D. legs.) 74/1992, which contains the pertinent provisions against comparative and misleading advertising. In Spain, competent administrative bodies are also entitled to claim against the advertiser on the grounds of Art. 25 General Advertising Act.[87] As far as the General Advertising Act is concerned, in Spain, the competent administrative body, the consumer association and the affected individual or corporation is able to request that the advertiser cease or remedy the unlawful publication. In Portugal, the public authority with the competence to monitor the legality of advertising is the *Instituto da Defesa do Consumidor* (National Consumer Institution)[88], which defends all consumers in the public interest. This institute is the Portuguese authority that monitors the adherence to advertising standards and can impose administrative sanctions such as fines and other accessory sanctions. In the U.S., the Federal Trade Commission (FTC) enforces claims according to the powers provided in the FTC Act; at the state level the Attorney General enforces the respective state regulations.

4. Evaluation and Conclusions for Choosing the Right Plaintiffs in Unfair Competition Disputes

4.1 The Claim for Recovery of Expenses for the Notice of Violation

In Germany, approximately 90 percent of all advertising disputes are settled with the help of the notice of violation, thus avoiding trial.[89] The enforcement of actions in Germany, which provide relief against unfair competition methods, has been described as 'probably the most effective' system of advertising control.[90] It has the advantage of enabling a quick response to the infringement because third-parties need not be involved in either the court or out-of-court proceedings.[91] In addi-

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[85] SI 1976/1813; SI 1976/1812 and SI 1977/1918.

[86] WEATHERILL, United Kingdom, in: SCHULZE/SCHULTE-NÖLKE, *supra* note 30, I.1.a).

[87] Ley 34/1988 General de Publicidad (LGP).

[88] Art. 21 Consumer Protection Act (Lei de Defesa da Consumido) and Art. 1 Decreto-Lei n. 234/99 de 25 de Junho; Art. 38 Industrial Property Code (Código de Propriedade Industrial, CPI).

[89] BÜSCHER, in: FEZER, Lauterkeitsrecht (2005), Sec. 12 note 1; JENNES/SCHOTTHÖFER, Germany, in: MAXEINER/SCHOTTHÖFER, *supra* note 59, at 203, 228.

[90] JENNES/SCHOTTHÖFER, Germany, in: Maxeiner/Schotthöfer, *id.,* at p. 203.

[91] German Federal Court of Justice, January 17, 2002, I ZR 241/99, 149 BGHZ 371, 374 – *Missbräuchliche Mehrfachabmahnung*.

tion, legal proceedings are avoided,[92] allowing the conflict to be settled more quickly.

However, the notice of violation and the accompanying claim for recovery of expenses are not a universal cure. The notice of violation cannot apply where a claimant does not exist. This is a problem in light of the lack of rights of claim for individual consumers in Germany and many other states. Ultimately, it does not help the injured party, but rather in general the attorney.[93] In Germany, it has taken over thirty years to be able to prevent abuse by professional associations. However, the abuse does not appear to be eradicated completely: newspapers report that lawyers are charging between €3,000 and €15,000 for a notice of violation, which is typically based on a standardized form.[94] Opinions on this issue differ. While some defend the high fees,[95] others are trying to curb these excessive attorneys' fees.[96] The legislature has evidently found it hard to draw a boundary for the appropriate costs, as would be the case with a limitation of recoverable attorney's fees to €50 for simple cases.[97] Because the value of the claim is hard to determine for legally protected interests that are immaterial, the current legislative proposal only partially solves the problem.[98] Finally, the injured party still carries the risk that the court will not agree to reduce the amount in controversy.[99]

Both the notice of violation under German law and out-of-court dispute settlements happen prior to litigation. However, differences also exist between the two. In practice, supervision is not carried out by a neutral third party, but rather by a notice association acting quasi as the 'police', as seen formerly in Germany.[100] The European Commission, in its out-of-court settlement recommendation 98/257/EC, called for impartiality and objectivity by this third party during dispute resolution. Logically its solution must be accepted by both parties, as they are not independent.[101] The notice of violation under German law invites abuse because the claim for recovery of expenses could be seen as a *form of private sanction*. Therefore, to counteract this, several Member States exclude the compensatory claim for partici-

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[92] BORNKAMM, in: HEFERMEHL/KÖHLER/BORNKAMM, *supra* note 24, at Sec. 12 note 1.5.

[93] The competitors have to self-execute their rights, *cf.* the proof in BRÜNING, in: HARTE-HENNING, *supra* note 59, at Sec. 12 note 85.

[94] Illustrated in BRANDL, 10.000 Euro für das Lied, 3.000 Euro für den Anwalt, FAZ from Dec. 4, 2007, Nr. 282 p. T1.

[95] *See* Gewerblicher Rechtsschutz und Urheberrecht e.V., Abmahngebühren im Urheberrecht, Letter to the Federal Ministry of Justice (BMJ) of 4 October 2006.

[96] Response of BDWi, GDM, HAMM and IVD to the Referentenentwurf zur Verbesserung der Durchsetzung von Rechten des geistigen Eigentums, Letter of 13 February 2006.

[97] *Cf.* Sec. 97a(2) of the proposed amendment to the German Copyright Act in the version of the Gesetzesentwurf zur Verbesserung der Durchsetzung von Rechten des geistigen Eigentums, Bundestags-Drucksache (BT-Drucks.) 64/07, p. 33.

[98] For alternatives see for example KITZ, Veröffentlichung fremder E-Mails im Internet, 2006 MultiMedia und Recht (MMR) 349, 350.

[99] Sec. 12(4) Act against Unfair Competition contains a comparable provision. According to KÖHLER, in: HEFERMEHL/KÖHLER/BORNKAMM, *supra* note 24, at Sec. 12 note 5.24 this is however rarely used.

[100] This counts at least for certain advertising measures.

[101] Recommendation 98/257/EC reason for consideration 9 s. 2.

pation in disputes by self-organisations. Thus the notice of violation gives too much and too little: too much, if it invites abuse, too little if legal enforcement fails for lack of standing. Thus it is not particularly surprising that no other state has chosen to implement a claim for the recovery of expenses for the notice of violation of anti-competitive conduct.

For the above reasons, it has been suggested that the legislator reconsider the claim for recovery of expenses. Accordingly, the claimant should only be able to recover her expenses for the notice if she wins her case in court.[102] With the 2004 reform, however, the German legislature has expressly confined the expenses recovery claim, including the costs of the violation notice, in Sec. 12(1) 2nd sentence Act against Unfair Competition. Were the German legislature to believe that the new Act against Unfair Competition provides a model for European legal harmonization,[103] it is certainly erring with regard to the recovery of expenses claim associated with the notice of violation.

4.2 The Consumer as a Plaintiff

Most Member States recognize a cause of action for consumers. Therefore, Germany's persistent denial of a consumer's right to claim is surprising. In the literature such a claim is often denied on the basis that Secs. 1 and 3 Act against Unfair Competition only protect the general public. This corresponds to the fact that the consumer's right to withdraw from a contract under Sec. 13a Act against Unfair Competition was abolished in Germany due to its lack of practical relevance in 2004.[104]

These arguments are, however, rather imprecise and of limited persuasiveness. Referring to empirical data and economic consequences, it is argued that a flood of claims by unaffected third parties would unduly burden the economy.[105] Numerous jurisdictions expressly emphasize that consumers should be protected by unfair competition law. However, in these jurisdictions, the right to claim has only been moderately used by consumers in the past.[106] The argument used above that consumers should have no right of claim if they do not use it out of neglect[107] indicates an extremely cynical approach to law. It mixes standing and claim objectives. If the plaintiff has to finance the legal costs in advance, small damages will likely not be claimed. Therefore, claims should be allowed to be brought jointly as was implemented recently in capital market law through the German Act on Exemplary Court

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[102] NORDEMANN ET AL., Wettbewerbs- und Markenrecht (9th ed. 2003), note 74.

[103] *Cf.* KELLER, in: HARTE-HENNING, *supra* note 59, at Einl. A note 11; <http://www.bmj.bund.de/enid/fad884c433728e8a7d340bfd7b6efd49,0/al.html>.

[104] *See* Legislative comments on the Act reforming the Act against Unfair Competition, BT-Drs. 15/1487, p. 14.

[105] *Id.*, at 22, where the legislature argues that undertakings would have to expect a great number of law suits by consumers for alleged infringement of the Act against Unfair Competition, if the level of substantive protection was maintained. Such a heavy burden for the economy would reduce German competitiveness. In a similar sense KÖHLER, in: HEFERMEHL/KÖHLER/BORNKAMM, *supra* note 24, at Sec. 1 note 34; Sec. 8 note 3.4.

[106] MÖLLERS/HEINEMANN, *supra* note 5; at B. Case 5.

[107] *Cf.* BEATER, *supra* note 58, at Sec. 28 notes 7 *et seq.*

Proceedings in Capital Market Law.[108] In addition the argument has been raised that a consumer's right of claim would not be necessary because a lack of protection does not exist.[109] The abovementioned criticism applies to this argument as well. The argument that remedies available pursuant to the Act against Unfair Competition may not negate or bypass the fundamental BGB remedies, however, is more solidly founded.[110] This argument can be rebutted by only allowing disclosure orders and injunctive relief, rather than contract dissolution or damages. A need for this is displayed by the facts, which were presented before the First Civil Panel of the Federal Court of Justice (I. Zivilsenat des Bundesgerichtshofs). The court held that the owner of a privately used cell phone, who received an unsolicited text message advertisement and wanted to sue the sending party, was allowed to request disclosure of their name and address from the telephone company.[111] For preventative reasons, it seems conceivable to explicitly incorporate such a claim into the Act against Unfair Competition, and thus satisfy the protective purpose of Sec. 1 Act against Unfair Competition.[112]

4.3 Enforcement by Public Authorities

4.3.1 Pros and Cons

From the German perspective, regulation of Act against Unfair Competition infringements by public law authorities has consistently been rejected.[113] In the course of the reform of the Act against Unfair Competition in 2004, the German legislature has also confirmed that future enforcement of unfair competition laws by public authorities will not be necessary.[114] A number of common arguments have been advanced: courts are better able to construe a general clause than administrative authorities. In the case of Germany's 80 million inhabitants, it is argued, a huge

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[108] Gesetz über Musterklagen in kapitalmarktrechtlichen Streitigkeiten (KapMuG).

[109] KÖHLER, in: HEFERMEHL/KÖHLER/BORNKAMM, *supra* note 24, at Sec. 8 note 3.4.

[110] KÖHLER, *id.*, at Sec. 1 note 34.

[111] German Federal Supreme Court (Bundesgerichtshof, BGH), July 19, 2007, I ZR 191/04 – *SMS-Werbung*; 2008 Neue Juristische Wochenschrift (NJW) 1236-1237; 2008 Monatsschrift für Deutsches Recht 517; Datenschutz-Berater (DSB) 10/2007, 20, with comments by VAHLE.

[112] Sec. 1 1st sentence Act against Unfair Competition states that the Act aims at the protection of competitors, consumers and other market participants against unfair competition. The second sentence of the provision adds the additional general interest in ensuring undistorted competition.

[113] SCHRICKER, Möglichkeiten zur Verbesserung des Schutzes der Verbraucher and des Funktionsfähigen Wettbewerbs im Recht des unlauteren Wettbewerbs, 139 Zeitschrift für das gesamte Handelsrecht (ZHR) 208, 234 *et seq.*, 242 *et seq.* (1975); SCHRICKER, Die Rolle des Zivil-, Straf- und Verwaltungsrechts bei der Bekämpfung des unlauteren Wettbewerbs, 1973 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR INT.) 694; KREUZER, Behördenbefugnisse in Unlauterkeitssachen?, 1979 Wettbewerb in Recht und Praxis (WRP) 255, 262; SCHRICKER, 1996 GRUR INT. 473, 478 (on condition that the association claim is appropriately handled); disagreeing VON HIPPEL, Verbraucherschutz, 1976 Rabels-Zeitschrift 513, 522 *et seq.*

[114] Begr. RegE (legislative comments), Bundestags-Drucksache (BT-Drs.) 15/1487, on Sec. 8, p. 22.

administrative machine would be necessary[115] and infringements would therefore ultimately not be eliminated.[116] The argument further goes that the competitor is more knowledgeable than any public authority of what is going on in the market. As a result, public law supervision would be superfluous, as competitors and associations would file claims in sufficient numbers. Following this line of argumentation, devoting public resources to this purpose would be of doubtful benefit.[117] The administrative legal procedure would follow the court procedure, thereby prolonging a final decision.[118]

A number of arguments, however, stand in favor of enforcement by public law authorities. Outside of Germany, Austria, Luxembourg and the Netherlands, public law supervision within the European Community exists on a larger scale. This also applies to Nordic, Anglo-American and French law. Even states which have only recently introduced the market economy, such as Poland or Hungary, recognize the need for a consumer ombudsman or an Office of Economic Competition (OEC), an office regulating consumer affairs. The public law supervision so vehemently rejected by Germany can therefore not be that bad after all. The effectiveness of the consumer ombudsman in the Nordic Member States (Sweden, Finland and Denmark) has explicitly been shown.[119] Legal enforcement under public law has also attracted praise in France and Italy. The generalized condemnation of public law proceedings found in England is inappropriate, as the local weights and measures authorities have the possibility to bring proceedings against infringements before the Office for Fair Trading (OFT).[120] As a rule, traders wish to avoid conflict with the local weights and measures authorities and the OFT. This is not least of all because all judgments and other measures against traders are publicized. For example the monthly OFT publication always contains the names of those whose license to provide credit has been revoked. In addition, alternative dispute resolution appears to function well.[121]

Another advantage of enforcement by public authorities is that they are able to react to potential infringement promptly while court proceedings can easily last multiple years. In addition, public law authorities have a range of legal measures at their disposal unavailable under civil law proceedings. For instance, the *principle of investigation* allows extensive information requests by the authorities. Enforcement is then achieved through administrative fines or, as is the case in Sweden and Finland, information orders. Intentional acts can be better investigated and sanctioned with information claims. However, in this respect the fact that there are gaps in legal

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[115] SCHRICKER, 1975, *supra* note 113, 139 ZHR, 208, 242 (1975).
[116] SCHRICKER, 1973, *supra* note 113, 1973 GRUR INT. 694, 698; KREUZER, *supra* note 113, 262.
[117] SCHRICKER, 1973, *supra* note at 113 1973 GRUR INT. 692, 698 *et seq*.
[118] SCHRICKER, 1973, *id.*, 1973 GRUR INT. 692, 696; clearly presented by KREUZER, *supra* note 113, at 262, taking the case *FTC v. Carter's Little Liver Pills* as an example, where the bundle of documents comprised 20,000 pages.
[119] *Cf.* the datas by VON HIPPEL, *supra* note 113, at 520.
[120] For example the local weights and measures authorities can bring proceedings for an injunction in the High Court as well, under Sec. 213(1) Enterprise Act 2002.
[121] *Cf.* MÖLLERS/HEINEMANN *supra* note 5, at B.III.4.

protection is a decisive point. While the competitor often seeks her own legal protection, the consumer frequently waives legal protection. Too often it holds true that anti-competitive conduct pays well.

4.3.2 Regulation (EC) No 2006/2004 on Consumer Protection Cooperation and other Alternatives

Regulation (EC) No. 2006/2004 on Consumer Protection Cooperation requires that for cross-border legal infringements, the Member States have to appoint competent authorities to give official assistance in response to other Member States' requests for information. Prior to this regulation, foreign public law bodies, for example the Danish consumer ombudsman, had to proceed within the relevant domestic legal system against cross-border infringements.[122] The regulation was enacted to ensure that violations of the law are prevented or, if this is not possible, that they are prosecuted.[123] To enable a compromise, Art. 8(3) of the Regulation allows the competent authorities to use consumers' associations enforcing the laws. The German legislature has made extensive use of this.[124] The authority to commission consumers' associations is supported by the fact that these associations have become extremely competent in the last ten years.[125] The premise to such a delegation of power however is that the associations are put in the position to legally assert their claims. On the other hand, they are notoriously underfunded.[126] The claim for disgorgement of profits on the part of consumer associations pursuant to Sec. 10 Act against Unfair Competition seems to be a rather ineffective measure as well. Extensive rights of discovery are necessary to determine profits. In addition, the consumer association bears the risks of the proceedings being decided in favour of the state, whereas precisely the opposite is required in order to strengthen consumer associations. Finally, it is not apparent why in Germany the state should take the profits. For these reason the act has been described as foolish.[127]

Interestingly the German legislator under the reformed Act of 2004 rejected, on the one hand, public law protection and a right of claim for consumers, but on the other hand criticized two gaps in legal enforcement: the first gap existed with regard to dispersed harm which results from numerous investors suffering limited losses

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[122] Sec. 8(3) no. 3 UWG; *cf.* KÖHLER in: HEFERMEHL/KÖHLER/BORNKAMM, *supra* note 24, at Sec. 8 note 3.62.

[123] Art. 4 Consumer Protection Cooperation No. 2006/2004; *see* also Sec. 5(1) Act on the Encorcement of EC Consumer Protection (EG-Verbraucherschutzdurchsetzungsgesetz, VSchDG) of 21 December 2006, OJ (BGBl.) Part I, p. 3367.

[124] Sec. 7 VSchDG.

[125] Begr. RegE (legislative comments), VSchDG, Bundesrats-Drucksache (BR-Drucks.) 538/06, p. 42 on Sec. 7.

[126] *See* also the numerous reports referred to, for instance, by BREITHAUPT-ENDRES, Bayerische Verbraucherzentrale, MÜNCHENER MERKUR of January 18, 2007.

[127] STADLER/MICKLITZ, Der Reformvorschlag der UWG-Novelle für eine Verbandsklage auf Gewinnabschöpfung, 2003 Wettbewerb in Recht und Praxis (WRP) 559, 562. For an opposing view see the prognosis by SACK, Der Gewinnabschöpfungsanspruch von Verbänden in der geplanten UWG-Novelle, 2003 WRP 549, 555, fearing that professional associations for the surrender of profits might develop and assert the reimbursement of their expenses.

and the second, the legislator concluded, was that the infringer could often keep the gains because consumers have no right of claim under the Act against Unfair Competition and are not motivated to pursue their own claim in view of the limited extent of the losses. Injunctions enforced by competitors only have a future impact.[128] Thus, in Germany, more than a few gaps in legal protection remain. It is therefore doubtful whether the existing means for punishment of infringements are 'effective, proportional and act as a deterrent' as is required by the Directive.[129]

To some extent, public law authorities already have jurisdiction over infringements of competition law, for example the Federal Authority for Financial Services (Bundesanstalt für Finanzdienstleistungen) under Sec. 36 Securities Trading Act[130] and Sec. 28 Securities Acquisition Act.[131] Instead of delegating the responsibility to the consumers' association, a department under the Federal Ministry of Food, Agriculture and Consumer Protection (Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (BMELV)) should be established. This would not be limited to act as the central liaison, but rather, like in Germany's neighbouring countries, would have its own ability to intervene. This would have a number of advantages: a specific and qualified contact for foreign authorities would exist. Additionally, the expertise of the different authorities could be combined, if necessary, because the Markets in Financial Instruments Directive (MiFID) introduced new European prohibitions on advertising.[132] Above all, gaps in the laws, which exist because of missing legal enforcement, would be filled. Such an unfair competition agency could also address the problem of spam[133] or the problems associated with illegal music downloads.[134] This situation is similar in other states. In the U.S., competence from two parties is held at state level. Both the Attorney General and private parties may proceed against infringements of unfair competition law. Those Member States which supervise unfair competition law through authorities also implemented this dual-competence (Sweden, Finland, Denmark, England, Poland, France (through criminal law), Italy, Spain and Portugal). Because of the Regulation on Consumer Protection Cooperation the Member States must establish competent authorities. Given this duty, Member States should not limit such authorities to cross border matters. It would be preferable that in Germany, Austria, the Netherlands and Luxembourg, the public law supervision of the cases would be seen as at least subsidiary when a gap in the law exists, if private parties do not proceed in the

[128] Begr. RegE (Legislative comments), UWG, Bundestags-Drucksache (BT-Drucks.) 15/1487, on § 10 p. 23.
[129] *Supra* note 45. Art. 5(1) reads; 'Member States shall ensure that adequate and effective means exist to combat misleading advertising …' The issue of state liability under European law for insufficient implementation of the directives will not be covered here.
[130] Wertpapierhandelsgesetz (WpHG).
[131] Wertpapiererwerbs- und Übernahmegesetz (WpÜG).
[132] Art. 19(2) Directive 2004/39 of 21 April 2004 on Markets in Financial Instruments (MiFID), [2004] OJ L 145, p. 1; corrigendum [2004] OJ L 45, p. 18; *cf.* MÖLLERS, in: HIRTE/MÖLLERS (ed.), WpHG, § 36b note 26 *et seq.* (2007).
[133] *See* legislative comments on the Act against Spam, BT-Drucks. 16/1436.
[134] *Cf. supra* note 94.

courts against the legal infringement.[135] This would be consistent with the Italian system. A supplementary right of claim for the cartel authorities could be considered for the cases where violation of the law against unfair competition can be pursued neither by the competitor nor by the associations.

5. Conclusion: Combination of Authorities and Court Intervention

In Germany, breaches of unfair competition law are primarily prosecuted using private law measures. A comparative law analysis shows that this is not necessarily the best solution. Notice of violation abuse continues to be an issue along with the fact that certain gaps in legal protection exist. To remedy the problem, the consumer associations need to be better provided for financially. They would then be able to effectively take legal action. Alternatively, a department for prosecuting breaches of unfair competition could be established under the Federal Ministry of Food, Agriculture and Consumer Protection. The implementation of such measures would demonstrate that Germany, on an international and European level, supports prosecution of breaches of unfair competition law. Citizens would benefit from such measures as well because gaps in their legal protection would be closed. Such measures would further reduce the problems connected with the fraudulent use of notices of violation. Finally, violation proceedings under Art. 226 EC against Germany would be avoided, because the remedies would be more effective than in the past.

[135] Supporting an addition, GLÖCKNER, in: HARTE-HENNING, *supra* note 60, at Einl. B notes 204 *et seq.*

Two Major and Long-Lasting Patent Law Issues in Japan

Tetsuya Obuchi

1. Introduction

For a long time, two of the most important patent law issues in Japan have been (i) the possibility of an invalidity defense in a patent infringement action and (ii) the scope of examination and decision by the courts in an annulment action against a Japan Patent Office ('JPO') Board of Appeal (Board) decision.[1] While the former issue is now substantially solved by the *Kilby* (2000)[2] decision and by new legislation,[3] the latter issue remains unfortunately largely unsolved.

The emphasis behind these major issues has been on the question of distribution of competence between the patent office and the courts, a point closely related to the technical specialization of the patent office (Board) and the courts.

The argument that only a technically specialized organ such as the patent office (Board) can decide upon the invalidity of a patent was very much emphasized, and, on the other hand, it was asserted that an organ lacking the required technical specialization cannot even decide, as a preliminary issue, upon the invalidity of a patent in a patent infringement action.[4]

As to the issue of the scope of examination and decision by the courts in an action against a Board decision, it was also argued that, based on the need to protect 'the interest of having the case examined and decided by the administrative agency of technical specialization prior to the judicial action against the Board decision', the required 'interest' would be impaired if the scope of examination and decision of the courts was not strictly limited to the ground of invalidity or rejection[5] which was actually *examined* and *decided upon* by the Board.[6] This argument raises the two following points. First, that the scope of examination and decision by the court does not cover the ground of invalidity which was examined, but was not decided upon, by the Board. Second, that the scope of each ground for invalidation is

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1 *See* 4.2, below, on its related issue.

2 Supreme Court, April 11, 2000, 54-4 Saiko saibansho minji hanreishu (Supreme Court Civil Decisions), *hereinafter* 'Minshu,' 1368 – *Kilby*.

3 The Amendment of the Court Law, *etc.* in 2004 (Law No.120 of 2004).

4 Another argument was that only the administrative organ itself can decide the question of validity of a patent granted by the patent office.

5 This article will focus on invalidation and not on rejection.

6 The Grand Bench of the Supreme Court, March 10, 1976, 30-2 Minshu 79. *See also* SHISHIDO, in: Saiko saibansho hanrei kaisetsu minji hen (Commentary on Supreme Court Civil Decisions), *hereinafter* 'Hanrei Kaisetsu,' 1976, 48-49.

defined by the invalidity provisions of the Patent Law (*e.g.*, lack of novelty, or lack of inventive step, *etc.*), and by the reference (prior art).

It was argued that the courts, which do not offer a high degree of technical specialization, should not be allowed to examine and decide on grounds other than those already examined and decided upon by the Board, which is a technically specialized organ. Although this may have been true in the past, this factor of a supposed lack of technical specialization does not hold true any more as, currently, the courts, assisted by a technically competent Judicial Research Official and, if necessary, by a Technical Commissioner, have the high degree of technical specialization required, as mentioned below.[7]

2. Background

2.1 Patent Litigation in Japan

A brief introduction of the current judicial system concerning patent litigation in Japan, including recent significant amendments, would be beneficial to a better understanding of the matter.

There are two types of patent litigation: the annulment action against a decision of the JPO Board (an administrative action), and the infringement action (a civil action).

An annulment action against a decision of the JPO Board, such as a decision on invalidation or a decision of rejection of a patent application, may be filed before the Tokyo High Court (the IP High Court) which has exclusive jurisdiction.[8] In an annulment action, the court can review the Board decision *de novo* in terms of both factual and legal issues, as the court of first instance.

A patent infringement action is heard by a district court as the court of first instance and by a high court as the second instance. As a result of the Amendment of the Civil Procedure Law in 2003,[9] an extremely high degree of jurisdictional concentration was achieved with respect to patent infringement litigation.[10]

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7 *See* 2.2, below.

8 Patent Law Article 178, para. 1.

9 Law No. 108 of 2003.

10 Following the amendment of the Civil Procedure Law in 2003, the Tokyo and Osaka District Courts enjoy exclusive first instance jurisdiction in patent infringement litigation, whilst the IP High Court enjoys exclusive appellate jurisdiction. Civil Procedure Law Article 6, paras 1 and 3. Tokyo and Osaka District Courts have specialized IP Divisions.

2.2 Ability of Courts to Deal with Technical Matters in Patent Cases

The Judges of the IP High Court[11] and of the IP Divisions of the Tokyo and Osaka District Courts are all law judges.[12] Although they have no special technological background, they are highly specialized in the field of IP law.

The ability of such courts to deal with technical matters in patent cases has been enhanced by a series of law amendments and by the courts' own efforts to improve their practices. The provision of technical assistance to judges is achieved through highly capable Judicial Research Officials of technology[13] and, if necessary, Technical Commissioners.[14] With the combination of specialized Judges, Judicial Research Officials of technology and Technical Commissioners, the courts are better able to properly and expeditiously handle complicated and difficult patent cases.

3. Invalidity Defense in Patent Infringement Actions

3.1 Basic Procedural Principle as Starting Point

The basic procedural principle of separation of infringement and invalidity procedures ('exclusive duality') constitutes a very important starting point.

Thus, in principle, the defense of invalidity of a patent is not admissible in a patent infringement procedure and the invalidation of a patent itself can be obtained solely through an invalidation procedure before the JPO Board.

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[11] The IP High Court was established as a *special branch* of the Tokyo High Court and started operating on April 1, 2005. The IP Divisions established in the Tokyo High Court were actually a prototype of the IP High Court of today. The adjudication function of the IP High Court did not basically change after the entry into force of the 2004 Law Establishing the IP High Court. In this sense, the real difference between before and after its official start exists in the organization and judicial administration.

[12] Although some argued in favor of the introduction of engineers as judges (so-called 'technical judges') this idea was abandoned in the course of the legal reform discussions.

[13] The Judicial Research Officials of technology specialized in the patent field play a very important role in patent litigation procedures. Though most members are appointed among the Examiners or the Board Members of the JPO, they are full-time independent court officials, unlike Technical Commissioners who are appointed on a case-by-case basis. Their role was further clarified and strengthened by the Amendment of the Court Law, *etc.* in 2004.

[14] The technical commissioner system was introduced for technical litigation, such as patent, medical malpractice or architectural litigation, in the Amendment of the Civil Procedure Law in 2003. Technical commissioners are appointed on a case-by-case basis by the courts and are expected to further elevate the court's ability to deal with technical cases by their high level of specialization and expertise.

This basic principle is similar to that adopted by German law,[15] but is quite different from US law where the defense of invalidity is generally admissible in a patent infringement action.[16]

Since Japanese patent law does not recognize partial invalidation, even if only part of a claim is subject to a ground for invalidation, the whole claim will be invalidated through an invalidation procedure unless the entirety of the invalid part of the claim is removed through a limitation procedure,[17] which is a post-issuance patent claim amendment procedure that is heard before the JPO Board.

3.2 A Critical Turning Point – The *'Kilby'* Supreme Court Decision

3.2.1 *'Kilby'* Doctrine

The basic procedural principle mentioned above has been substantially altered by the '*Kilby*' Supreme Court Decision of 2000.[18]

On that occasion, the Court held that even before the Board decision invalidating the patent becomes final and irrevocable, a claim for injunction or damages based on the patent right should be dismissed because of abuse of right (*abus de droit*)[19] where there is a manifest ground for invalidity in the patent, unless there exists a special reason for deciding otherwise. 'Unless there exists a special reason for deciding otherwise', which is mentioned above, is intended to refer to the possibility of avoiding the invalidity through claim limitation in a limitation procedure.

According to the *Kilby* doctrine, by applying the principle of abuse of right, the infringement court can reach the same conclusion as where the validity of the patent is decided by way of the defense of invalidity in an infringement procedure.

Consequently, even though the very core of the basic procedural principle mentioned above still remains valid, the '*Kilby*' defense, which is based on abuse of right, is held to be admissible, and thus, the court in an infringement action can actually decide on the validity of the patent when determining whether the claim for injunction or damages based on the patent right should be dismissed on the merits.

3.2.2 Related Issue –Biased Claim 'Interpretation' Practice

It should be noted that though infringement courts *actually* examined and decided upon the validity of patents prior to the *Kilby* decision, such examination and decision was done, not by way of an invalidity defense but, rather, by way of 'interpretation' of the patent claim.

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[15] For German procedural principles, *See* KRASSER, Patentrecht, S. 730, S. 914 (5th ed. 2004); ROGGE, in: BENKARD, Patentgesetz, § 22 Rn.6-7 (10th ed. 2006); KEUKENSCHRIJVER, in: BUSSE, Patentgesetz, vor § 81 Rn. 3; § 139 Rn. 184; § 140 Rn. 6 (6th ed. 2003); BGH GRUR 1964, 606, 609 – *Förderband*; 1979, 624, 625 – *Umlegbare Schießscheibe*.

[16] *See* CHISUM, Chisum on Patents § 19.02. *See also* 35 U.S.C. § 282.

[17] The term of a 'limitation procedure' *hereinafter* refers to the post-issuance patent claim amendment procedure before the Board.

[18] *See supra* note 2. *See also* TAKABE, in: Hanrei Kaisetsu 2000, 418.

[19] Civil Code Article 1, para. 3.

According to the above-mentioned principle of exclusive duality, the invalidation of patents is the exclusive competence of the patent office (Board), not the courts. Thus, a court hearing an infringement suit, even if it were to find that there is ground for invalidation of the patent in question, may not consider such invalidity and, instead, has to treat the patent as valid. The old case law was very loyal to the principle.[20]

However, newer case law tried to reject the enforcement of patents where there was ground for invalidation, either wholly or partially, through 'interpretation' techniques. Typically such techniques would be 'the technique of interpretation that excludes the part of claim which is subject to invalidity ground in terms of prior art[21]' or 'the technique of interpretation which limits the claim only to the examples in the specification.'[22]

By so doing, the infringement court would actually find that part of the claim was invalid, without holding the claim as legally invalid, by way of claim 'interpretation', in reality achieving the same outcome as it would achieve if it had the competence to decide upon the validity of the patent.

Such kind of practices by the infringement courts demonstrated that, *in reality*, they possessed the expertise required to decide upon the issue of validity of a patent. This, in turn, lead to the *Kilby* doctrine and then finally to the introduction of the defense of Article 104ter. It is also noteworthy that neither the *Kilby* doctrine nor Article 104ter resort to the extremely narrow claim 'interpretation' technique in a biased manner. On the other hand, since the issue of invalidity can be dealt with by the infringement court by way of the *Kilby* doctrine or the defense of Article 104ter, there no longer exists any practical necessity or pressing demand to narrow the claim interpretation excessively, as mentioned above, when deciding upon an invalidation issue. In this sense, patent interpretation practice in infringement litigations in general is likely to be normalized in the future.[23]

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[20] *See* Great Court of Cassation, September 15, 1904, 10 Daishin'in keiji hanketsuroku (Criminal Decisions of the Great Court of Cassation) 1679; April 23, 1917, 23 Daishin'in minji hanketsuroku (Civil Decisions of the Great Court of Cassation) 654.

[21] An infringement court that finds that only part of the patent claim is subject to invalidation ground will try to interpret the claim extremely narrowly so as to exclude the part of the claim found to be subject to invalidation ground. The court will then deny the infringement action if the accused product falls in this 'excluded' part. This is 'the technique of interpretation that excludes the part of claim which is subject to invalidity ground in terms of prior art.' *Cf.* Supreme Court, August 4, 1964, 18-7 Minshu 1319.

[22] If the first technique is adopted in case where the patent claim is subject to invalidation grounds as a whole, the nonsensical conclusion that the whole patent claim is 'excluded' would be reached. Instead, 'the technique of interpretation which limits the claim to only the examples in the specification' is used. *Cf.* Osaka District Court, July 19, 1990, 1390 Hanrei jiho 113; Osaka High Court, February 10, 1976, 8-1 Mutaizaisanken kankei minji gyousei saibanreishu (Civil and Administrative Decisions regarding Intellectual Property) 85.

[23] Another important issue is the relationship between the claim interpretation for questions of infringement and that for questions of invalidity. Under the traditional practice, the same claim might be actually interpreted quite differently depending upon whether it is an infringement or an invalidity issue.

3.3 A Further Critical Turning Point

The actual change made by the '*Kilby*' decision was further reinforced by the 2004 Amendment of the Court Law, *etc.*[24] which introduced a new defense in Article 104ter of the Patent Law. Article 104ter (restriction on exercise of rights of patentee, *etc.*), para. 1 reads: 'Where, in litigation concerning the infringement of a patent right or a registered exclusive license thereof, the said patent is found to be one that should be invalidated through a patent invalidation procedure, the rights of the patentee or registered exclusive licensee may not be enforced against the adverse party.'

This new defense is generally considered as enacting the basic position of the '*Kilby*' defense and improving upon it by changing the legal ground from a defense based on the general principle of abuse of right to a defense based on a specific statutory provision and by dropping the 'manifest' requirement found in the '*Kilby*' defense.[25] Experts are generally of the opinion that no substantial difference exists between these two defenses in terms of treatment concerning the possibility of avoiding patent invalidity through a limitation procedure.[26]

It is noteworthy that, in infringement procedures, courts can decide both on *the validity of the patent itself* and on *the possibility of avoiding the invalidity through a limitation procedure* when examining the defense of Article 104ter.

The above-mentioned basic principle of exclusive duality can be divided into two parts: (i) the patent itself can be invalidated *erga omnes* (absolutely)[27] only through a JPO invalidation procedure, and (ii) the infringement court may not examine and decide upon the invalidity of the patent, even *inter partes* (relatively),[28] as a preliminary issue of the infringement litigation.

Even after the introduction of Article 104ter, point (i) remains unchanged; The patent itself can be invalidated *erga omnes* only through JPO invalidation proceedings, when the JPO Board invalidation decision becomes final and irrevocable. The infringement court cannot invalidate the patent.

Point (ii), however, is substantially changed. Currently, when the infringement court finds that the patent in question should be invalidated by way of invalidation proceedings, it can *officially* examine and decide upon the invalidity of the patent

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[24] *See supra* note 3.

[25] *See* KONDO/SAITO, Shiho seido kaikaku gaisetsu 2 (Outline of Judicial System Reform 2), 253 (2004). The 'manifest' requirement was opposed by the industry, on the ground that it is unclear and unpredictable.

[26] *See* MAKINO *et al.*, Chitekizaisan koto saibansho sechiho oyobi saibanshoho to no ichibu wo kaiseisuru horitsu nitsuite (Discussion on the Law Establishing the IP High Court and the Amendment of the Court Law, *etc.*), 55-4 Chizaikanri (Intellectual Property Management) 467, 472-474, 478.

[27] *I.e.*, the effect of the invalidation decision covers procedurally everyone, not limiting to the parties of the invalidation proceedings

[28] *I.e.*, the effect of the infringement court's judgement does not cover beyond the parties of the infringement.

and can deny the claim for injunction or damages based on a patent right.[29] In such case no prior JPO Board decision invalidating the patent, nor even an application to the Board, is required for the court to reach a decision. Actually, in many cases, no application for an invalidation procedure is ever made.

Consequently, there are currently two routes for having invalidity issue decided upon. One is the invalidation proceedings in the JPO Board, through which the invalidation of the patent itself can be obtained, the other is a decision by the infringement court over the invalidity of the patent through Article 104ter. It is significant that, in the latter route, the decision by the infringement court that the patent should be invalidated does not affect the validity of the patent itself. Although, theoretically speaking, the patent remains valid and the registration of the patent at the patent office remains untouched, in practice the patent in question will not be easily asserted again even in another litigation as of when the infringement court's decision becomes final.

One prevailing theoretical explanation for the current legal position is that absolute invalidity of the patent itself is available only through invalidation proceedings, while relative invalidity as a preliminary issue of patent infringement can be obtained through the findings of an infringement court.

The current Japanese position might be called '*non-exclusive*' duality of infringement and invalidity procedures. In the sense that there exists invalidation procedure that differs from, and is independent of, the infringement litigation procedure, it is a *dual* system of infringement and invalidity. However, the invalidity procedure is *not exclusive* in the sense that the infringement court can actually decide upon the invalidity of the patent based upon the defense on Article 104ter, even though the competence of invalidating the patent itself is reserved exclusively to the JPO Board.

Under this new system of '*non-exclusive*' duality of infringement and invalidity procedures, the interplay between the infringement and invalidity procedures will be extremely important, particularly for the two questions in *3.4* below.

There are two important aspects that underlie the changes in case law and in the new legislation, one positive and the other negative. The positive aspect is that since the infringement courts' ability to handle technical patent law cases is enormously improved through the enhancement of the specialization of law judges and the support of expertise by technological supporting court staff members, infringement courts possess the capacity required to actually decide upon the issue of invalidity of a patent. The negative aspect is that the invalidation procedure as a whole does not really function satisfactorily because the delays in invalidation procedures at the JPO are such that it is not practical for the infringement court to wait for the outcome of the invalidation procedure. Moreover, the appeal procedure (annulment

[29] *See* TAKIGUCHI/SAKAGUCHI, Chitekizaisan koto saibansho sechiho oyobi saibanshoho to no ichibu wo kaiseisuru horitsu no gaiyo (Outline on the Law Establishing the IP High Court and the Amendment of the Court Law, *etc.*), 24 Law & Technology 61 (2004).

action) against a decision in an invalidation procedure is also delayed due to 'catch-ball phenomenon' mentioned below.[30]

3.4 Remaining Important Related Questions

3.4.1 Relation to the Preclusion by Article 167 of the Patent Law

The first question is whether or not the defense of Article 104ter is precluded when the application for an invalidation procedure at the JPO is barred. A typical case would be that of Article 167[31] which provides that a final and irrevocable JPO Board decision, dismissing a claim for invalidation, which has been registered at the JPO, will preclude the applicant, and also everyone else, from subsequently applying for an invalidation procedure involving the same patent on the basis of 'the same facts and evidence'. The criticism leveled on Article 167 is that the procedural right of persons other than the applicant of the first invalidation is unduly impaired.[32]

The question is whether such other persons are also precluded from asserting the defense of Article 104ter when they are barred, under Article 167, from subsequently applying for the invalidation procedure. Most commentators seem to argue against such preclusion by arguing that the preclusion under Article 167 only covers the application for the invalidation procedure itself and not the assertion of the defense of Article 104ter.[33]

If the assertion concerning the invalidity of a patent based on 'the same facts and evidence' in an infringement action, through the defense of Article 104ter, is possible even though the application for the invalidation procedure by anyone is precluded because of Article 167, the actual effect of Article 167 may become mitigated to the minimal extent that it only bars the application for having the patent absolutely invalidated and also for having the registration cancelled on the basis of the same facts and evidence. On the other hand, the problem of due process will also be substantially curtailed.

3.4.2 Retrial

The second issue concerns whether or not a final and irrevocable decision by an infringement court affirming the assertion of a patent right, whether when the defense of Article 104ter is denied or when it is not asserted, should be set aside

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[30] *See* 4, below.

[31] A predecessor of this provision is Article 87 of the 1909 Patent Law, which had its origin in Article 93 of the 1897 Austrian Patent Law. *See* KIYOSE, Tokkyoho genri (Theory of Patent Law), 526 (1922); TAKIGAWA, Tokkyo sosho tetsuzuki ronko (Essays on Patent Litigation Procedure), 102 (1991).

[32] For arguments in favor of abolishing the binding effect on persons other than the applicant as a result of Article 167, *see* TAKIGAWA, *supra* note 31, at 117-118.; MAKINO, in: NAKAYAMA *et al.*, (ed.), Tokkyo hanrei hyakusen (Selection of Precedents in Patent Law), *hereinafter* 'Hanrei Hyakusen', 99 (3rd ed. 2004).

[33] *Cf.* TAKABE, 11 Chitekizaisan hoseigaku kenkyu (Intellectual Property Law and Policy Journal) 136 (2006).

through a retrial procedure (corresponding to *Wiederaufnahme des Verfahrens* in German law),[34] in cases where, after such court decision becomes final and irrevocable, the JPO invalidation Board renders a final and irrevocable decision invalidating the patent.

Theoretically speaking, prior to the *Kilby* decision and the introduction of Article 104ter, the validity of a patent could not be contested by a party and decided upon by the infringement court. Under this principle of the *exclusive* duality, it was generally accepted that a court decision holding that a patent had been infringed should be set aside by a retrial procedure when the JPO Board decision invalidating a patent became final and irrevocable subsequent to the court decision. However, there are those that oppose such setting aside of a final and irrevocable court decision through retrial, arguing that, since currently the ground for invalidation can be asserted in an infringement action, asserting such invalidation ground should be encouraged in an infringement action, not in a later invalidation procedure stage, and that therefore setting aside a final and irrevocable court decision through retrial would discourage such earlier assertion of such ground for invalidation in the infringement action.[35]

This issue is closely related to the fundamental question of which organ, the JPO Board or the infringement court, should have final power over the issue of the validity of a patent. The issue also depends heavily on whether the retroactive effect of the JPO Board decision invalidating the patent, or, the stability of a final and irrevocable decision by the infringement court, should take priority.[36] The government officials in charge of drafting Article 104ter seem to hold the position that the court decision affirming assertion of the patent right should be set aside if, after such court decision becomes final and irrevocable, the Board decision invalidating the patent is rendered and becomes final and irrevocable.[37]

4. Important Issues on an Annulment Action Against a JPO Board Decision

4.1 Scope of Examination and Decision of the Annulment Court

According to the March 10, 1976 decision of the Grand Bench of the Supreme Court,[38] the scope of examination and decision of the Tokyo High Court in an

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[34] Civil Procedure Law Article 338, para. 1, no. 8.

[35] *See* TAKABE, Chitekizaisanken sosho kongo no kadai (Issues on Intellectual Property Litigation) 859 NBL 19, note 10 (2007).

[36] According to Article 125, a patent that has been invalidated by a Board decision that has become final and irrevocable shall be deemed not to have existed from the beginning. Theoretically Speaking, because of such retroactive effect, it is deemed that the infringement court should have treated the patent as invalid, even when no grounds for invalidation were found to exist from the perspective of the court.

[37] *See* KONDO *et al*., Chitekizaisan koto saibansho sechiho oyobi saibanshoho to no ichibu wo kaiseisuru horitsu nitsuite (Comments on the Law Establishing the IP High Court and the Amendment of the Court Law, *etc*.), 788 NBL 61 (2004).

[38] *See supra* note 6.

annulment action against a JPO Board decision is strictly limited to those grounds of invalidity already examined and decided on by the JPO Board.[39]

The essence of the case is as follows: An invalidation procedure against a patent was launched based on grounds A and B. The Board rendered a decision invalidating the patent based on ground A, but did not decide upon ground B. The patentee initiated an annulment action before the Tokyo High Court against the Board decision. The Tokyo High Court found that ground A did not stand for the decision invalidating the patent, contrary to the Board decision. Although the defendant tried to introduce ground B, which had already been introduced before the Board, and ground C which was newly alleged in the annulment action, the Tokyo High Court rejected both of those grounds, holding that neither ground was decided upon by the Board in the invalidation procedure and thus the Board decision was to be set aside so that the Board could examine and decide upon those two grounds.

This rigid limitation of the scope of examination and decision by the court in the action against the JPO Board decision is the cause of the first type of a so-called 'catch-ball phenomenon' where the case goes back and forth wastefully between the court and the JPO Board. Even if the JPO Board decision invalidating the patent was to be affirmed on the basis of another ground (such as ground B) from the court's perspective, the Board decision would have to be set aside and the invalidation procedure would be reopened in order to have grounds B and C decided upon by the JPO Board. This result would certainly cause serious delay to the invalidation procedure. In such case, the patent subject to the ground for invalidation, which should be invalidated through invalidation procedure as soon as possible for the purpose of the patent law not to allow the invalid patent to enjoy monopoly power, could avoid being invalidated for a prolonged time, and as the result the fundamental purpose of patent law could be seriously damaged. This shortcoming will be especially serious when deciding on ground A which is delicate and requires a large amount of time and energy, while invalidation on ground B is manifestly easier. In such case, if the above-mentioned limitation of the scope of the examination and the decision by the court was not required, the court could easily render a decision upholding the decision of the Board and the invalidation of the invalid patent could also be achieved without delay.

It might be a good idea to introduce discretionary a remand system for cases where deciding over the ground for invalidation is difficult and the court feels that it would be better to remand the case to the Board to have the issue of invalidity decided first by the Board. However, it does not make sense for the rigid and categorical limitation of the scope of examination and decision by the court to categorically lead to the setting aside of the decision of the Board regardless of how the court considers that the case should be handled.

According to the general theory of Japanese administrative law, the scope of examination by a court of a decision by an administrative agency in an annulment

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[39] *See* 1, above. For detailed examination on this issue, *see* OBUCHI, Tokkyo shinketsu torikeshi sosho kihon kozoron (Theoretical Analysis on the Basic Structure of an Annulment Action against a Patent Board Decision) (2003).

action is not necessarily limited to the ground upon which the decision of the administrative agency relied, unless otherwise provided by law.[40]

Therefore, according to this general rule of administrative law, the scope of examination by the Tokyo High Court (IP High Court) regarding a JPO Board decision should not be necessarily limited to the ground for invalidation upon which the decision relied.

Nevertheless, it is argued that, in order for the 'interest' mentioned above[41] not to be impaired, grounds for invalidation other than those that have already been examined and decided upon by the Board cannot be examined and relied on by the courts. However, such argument is highly unusual within the framework of the general rule of administrative annulment litigation and, at the very least, does not seem to be valid enough to affirm such categorical limitation of the scope of examination of the Board decision by the court. Moreover, after the *Kilby* decision and the 2004 amendment introducing Article 104ter, such argument has lost further validity.[42] Although the argument based on the 'interest' has become case law of the Supreme Court Grand Bench, its rigid rule seems to be beginning to lose support.[43]

4.2 Outcome of the Annulment Action Against the JPO Board Decision Invalidating the Patent, when the JPO Board Decision Limiting the Patent Claim Becomes Final and Irrevocable[44]

According to a 1999 decision of the Supreme Court,[45] upon a Board decision limiting the patent claim becoming final and irrevocable, the Board decision invalidating

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[40] *See* SHIONO, Gyoseiho II (Administrative Law II), 154 (4th ed. 2005). *See also* Supreme Court, September 19, 1978, 24-12 Shomu geppo 2657. It should be also noted that, under the basic principle of the Japanese Civil Procedure Law, even where the second instance court finds in the appellate procedure that the ground on which the decision by the first instance based is groundless, it should still affirm the decision by the first instance, if it also finds that a ground other than the ground upon which the decision of the first instance relied can sustain the final conclusion of the decision by the first instance court. Civil Procedure Law Article 302, para. 2. Furthermore, no general limitation concerning "new evidence" or "new issue" actually exists. It should be also noted that both legal and factual findings by the first instance court are subject to *de novo* review by the second instance court. In other words, no such general limitation by "deference" in terms of fact finding exists. *See* HATTORI/HENDERSON, Civil Procedure In Japan, § 8.02[1], [3][a] (2nd ed. 2000).

[41] It refers to 'the interest of having the case examined and decided by the administrative agency of technical specialization prior to the judicial action against the Board decision.' For the argument based on the 'interest,' s*ee* 1, above.

[42] *See* OBUCHI, Tokkyoho to no kaishakuron ripporon niokeru tenki (Turning Point in Patent Law and Policy), in: AIZAWA *et al.* (ed.), Chitekizaisanho no riron to gendaiteki kadai (Theory and Current Problems of Intellectual Property Law), 28-31 (2005).

[43] *See* MAKINO, in: Hanrei Hyakusen, 169; SHINOHARA *et al.*, Chizai kosai no sechi to kongo no chizai sosho no arikata (The IP High Court and the Future of IP Litigation), 1293 Jurist 47 (2005).

[44] *See generally* OBUCHI, *supra* note 42, at 34-65.

[45] Supreme Court, March 9, 1999, 53-3 Minshu 303. *See also* NAGASAWA, in: Hanrei Kaisetsu 1999, 166.

the patent should be automatically revoked by the decision of the Tokyo High Court and the JPO Board invalidation procedure should be reopened.

The essence of the case is as follows: An invalidation procedure was brought against a patent whose claim (Claim A) was invalidated by the JPO Board based on lack of inventive step due to the existence of a prior art.[46] The patentee filed an annulment action before the Tokyo High Court and applied for a limitation procedure requesting the Board to limit Claim A to Claim A'. The Board agreed and limited Claim A to Claim A' in a decision that became final and irrevocable, and thus, the claim of the patent was deemed to only cover Claim A' with retrospective effect.[47] However, since the Tokyo High Court found that a part of Claim A' still remained subject to the ground for invalidation, and the Board decision invalidating the patent was upheld. The Tokyo High Court also found that in this case, since no new ground for invalidation was invoked, the Supreme Court precedent[48] did not hinder the above decision. The High Court decision was subsequently appealed to the Supreme Court which held that even in case where the ground for invalidation, *i.e.* the lack of inventive step due to the existence of the prior art, remains in the new limited Claim A', the Board decision invalidating the patent should be automatically set aside so that the Board can first decide whether the new limited claim, Claim A', is still subject to a ground of invalidation, simply because the claim limited through the limitation procedure, Claim A', has not yet been considered and decided upon by the Board in the invalidation procedure.

The argument based on the 'interest' mentioned above[49] seems to be used here to justify this finding. The Supreme Court seems to say that, in order not to impair such 'interest', the JPO Board should decide on the same ground of invalidation and on the same claim, namely the new claim limited through the limitation procedure, beforehand. However, it should be noted that in the case at hand, such Board decision that decided upon the same ground of invalidation and upon the same claim actually existed beforehand. Under Japanese law, in order for the Board decision limiting the claim from Claim A to Claim A' to be rendered, all requirements for granting a patent should be met as to Claim A'.[50] In other words, Claim A' should be free from any ground of invalidation. Therefore, when such limitation decision is rendered by the JPO Board, it inevitably means that the Board has compared Claim A' with the ground of invalidation and thus, at least, found that Claim A' is not subject to the same ground of invalidation, namely the lack of inventive step due to the existence of the prior art.

Consequently, even if we were to examine such argument based on the 'interest', such 'interest' would be fully satisfied as to Claim A' through the examination and decision by the JPO Board in the *limitation* procedure and there would thus be

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[46] For the inadmissibility of partial invalidation in Japan, *see* 3.1, above.
[47] Patent Law Article 128.
[48] *See supra* note 6. For the details, *see* also 1 and 4.1, above.
[49] *See supra* note 41.
[50] Patent Law Article 126, para. 5.

no reason for an automatic revocation of the Board decision invalidating the patent for the sake of the 'interest'.

This automatic revocation of a JPO Board decision causes another type of 'catch-ball phenomenon' where the case goes back and forth wastefully between the Court and the JPO Board. This Supreme Court decision is surprising especially because, in this case, in spite of the triviality of the limitation, the JPO Board decision invalidating the patent was automatically set aside, even though, according to the findings of the Tokyo High Court, the decision of the JPO Board itself should have been upheld even after the claim limitation. This has lead to an increase of abusive applications for limitation procedures requesting trivial limitations.

4.3 The 2003 Amendment of Patent Law

The 2003 Amendment of the Patent Law[51] was made in order to deal with the very serious problem of the second type of 'catch-ball phenomenon' mentioned above.

This amendment introduced a new system of remand decision by which a court can remand a case to the JPO Board at its discretion.[52] The position taken by the Supreme Court in its 1999 decision[53] is not fully harmonized with this new system of discretionary remand, because the premise of a discretionary remand is that the Board decision invalidating the patent is not automatically set aside even when the Board decision limiting the patent claim becomes final and irrevocable.

Whether the problem of the second type of 'catch-ball phenomenon' can be properly solved will depend on how the courts exercise their discretion. It would be improper to remand a case to a JPO Board procedure for the limitation of a claim[54] if the requested limitation will not satisfy the requirements for limitation, *i.e.*, that the new claim requested to be limited will be subject to a ground of invalidation. In such case, remand will just result in undue delay in invalidating the patent which should actually be invalidated as soon as possible. However, it seems that there are numerous cases that are remanded, even where the requested limitation does not appear to really meet legal requirements. This seems due to the fact that the court is afraid that if it failed to remand the case the limitation decision might be rendered by the JPO Board, with the unwanted result that an automatic revocation of the invalidation decision by the JPO Board might happen. However, as shown above, the result of automatic revocation in such case is groundless and thus, it is unnecessary to remand based only on the fear of such unwanted result.

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[51] Law No. 47 of 2003.

[52] Patent Law Article 181, para. 2. The Amendment also limited the time period in which the application for limitation procedure may be made so that the possibility of such unwanted result might be reduced to some extent. Patent Law Article 126, para. 2.

[53] *See supra* note 45.

[54] Claim limitation is also possible in an invalidation procedure at the JPO Board. Patent Law Articles 134bis & 134ter.

5. Closing Remarks

In infringement procedures, when deciding both the possibility of an invalidity and that of avoiding such invalidity through a claim limitation, the whole patent dispute can be solved in a single infringement litigation procedure, while, in an action against a decision of the JPO Board, the dispute is actually split up into small pieces by each new ground for invalidity and by each claim limitation.

The 'interest' mentioned above seems to be the real reason for supporting the rigid and categorical limitation of the scope of examination and decision by the Tokyo High Court (IP High Court). However, such argument lacks a reason for such limitation. Furthermore, it is highly significant that even the infringement court, which is less specialized than the annulment court, can actually decide upon the validity of a patent and moreover upon the possibility of avoiding the invalidity through a claim limitation, even when neither invalidation procedure nor limitation procedure is initiated and thus no JPO Board decision is rendered. Therefore, the groundless nature of the argument based on the 'interest' is even clearer.

While the first issue has been substantially solved through case law and legislation, the second issue remains unsolved with the unfortunate consequence of serious delays occurring in actions against JPO Board decisions, which may endanger the patent system in Japan as a whole. The solution depends heavily on how the IP High Court will deal with the two types of 'catch-ball phenomenon'. It is my sincere hope that the second issue will also be solved satisfactorily in the near future.

Intellectual Property Rights and Arbitration – Miscellaneous

Krešimir Sajko

1. Introduction

The jurisdiction of institutions for settlement of private law disputes concerning intellectual property rights is bifurcated. Depending on the satisfaction of the prescribed legal requirements, jurisdiction is exercised either by state courts or by arbitrators. However, some of these disputes could be solved by other methods of alternative dispute resolution, i.e., by conciliation (mediation), which is foreseen by several national laws. At the level of the European Union there are endeavors to promote such proceedings, too.[1]

In this paper I will first present and compare similarities and differences between the resolution of disputes by means of court litigation and arbitration, thereby underlining some characteristics of arbitration. Next, I will focus on the issue of arbitrability, with special reference to the arbitrability of disputes regarding international intellectual property by institutional arbitration.[2]

This paper is dedicated to the distinguished Professor Dr. Dres. *honoris causa* Joseph Straus, my old friend, from whom I learned very much about intellectual property rights. I became acquainted with Joseph in the early eighties of the last century while I was conducting scientific research at the Max Planck Institute for Intellectual Property, Competition and Tax Law in Munich. Since then we have been in steady contact, occasionally giving lectures in the above-mentioned renowned German institute and in Croatia and publishing articles on intellectual

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[1] *See* generally, as regard to the European Union law, Directive 2008/52/EC of the European Parliament and of the Council of 21 May 2008 on certain aspects of mediation in civil and commercial matters, OJ L 136, 24.5.2008. More about mediation in comparative law and its characteristics, *see* DENDORFER, Supplement Mediation – Verbindung traditionaler Methoden der Streitentscheidung und Mediation – Verschwendung oder Ausweitung von Ressources? in: Liber Amicorum P. Hay, 99 *et seq.*(2005).

[2] National arbitration laws, *mutatis mutandis,* often adopt the notion of *international arbitration* as defined in Article 1(3) of the UNCITRAL Model Law on International Commercial Arbitration of 1985, amended in 2006 (further: UNCITRAL Model Law), which combines the internationality of the parties and the internationality of the subject matter criteria, adding thereby the third criterion – parties express agreement that the subject matter of the arbitration agreement refers to more than one country. Article 1(7) of Croatian Law on Arbitration (further: Croatian Law) provides that dispute with an international element means a dispute in which at least one party is a natural person with domicile or habitual residence abroad, or a legal person established under foreign law.

property rights in these states.[3] In my opinion, Professor Straus is one of the greatest scholars in the field of intellectual property rights. In his scientific research and works he displays a great ability to analyze, evaluate, judge and compare the most complicated legal matters and provide solutions for them. Therefore, I prepared this paper with great pleasure as I would like it to express my appreciation both for his impressive and important scientific contributions and for his long and sincere friendship.

2. Characteristics of Arbitration; Some Reasons for its Increased Use

2.1 Why Litigate when you can Arbitrate?

This question and debate is an old one, but still very current. Without claiming to exhaustively deal with these issues, I intend to present and analyze some characteristics of arbitration, which in my opinion comprise some arguments in favor of this method of dispute resolution.[4]

It is well known that proceedings to resolve disputes before courts can be initiated, if the jurisdictional requirements of those courts, as set forth in internal procedural law or applicable international instruments, are met; the agreement of the parties is not a precondition for such jurisdiction. Conversely, arbitration proceedings can be initiated only if parties agree, explicitly or impliedly, to resolve their dispute within these proceedings; there is no arbitration without the parties' consent. Taking into account just this difference, the relationship between litigation and arbitration as methods of solving international disputes could be described as a relationship between a rule and its exception.

However, there are some similarities between the mentioned methods of dispute resolution. Without entering into all the details, the following should be mentioned here. Both methods use contentious, adversarial procedures, and during these proceedings, more or less extensive evidentiary material is produced. In addition, more or less burdensome findings of fact must be made in order to subsume relevant facts under applicable legal rules. The internal stringent rules on litigation, as part of public law, are based on a territorial principle. Thus, *e.g.* the German Code of on Civil Procedure (further: German ZPO), or the French New Code on Civil Procedure (further: French CCP), are almost without exception applicable only within these

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[3] STRAUS, Zaštita prava umjetnika izvođača i Rimska konvencija iz 1961 – retrospektivno razmatranja (Protection of Performers and the Rome Convention of 1961 – Retrospective observations), in: Contributions to the Study of Comprative and International Law, Zagreb, No. 20,103 *et seq.* (1984); SAJKO, International-privatrechtliche Fragen internationaler Lizenzvertraege, 1986 Gewerblicher Rechtsschutz und Urheberrecht, Interantionaler Teil (GRUR Int.) 236 *et seq.*

[4] For further arguments in favour of arbitration, compare *e.g.,* BURGER, Using Arbitration to Achieve Justice, 40 Arb. J. 4 *et seq.* (1986); MANEV, The Arbitration – Main Form of Non-Government (Public) Jurisdiction, In: Awareness Raising of SMEs of the Opportunities for Arbitration and Alternative Disputes Resolution, 77 *et seq.* (2004).

respective states. The same territorial scope of application, with some exceptions, is adopted in regard to the application of arbitration laws, as it is set, *e.g.,* in Article 1(2) of the UNCITRAL Model Law, Article 1025(1) of the German ZPO, despite the wording of Article 1062(2) ZPO, further Article 176(1) of the Swiss Federal Statute on International Private Law (further: Swiss Statute on PIL), Article 1(1) of the Russian Law on Arbitration, Article 1 of the Croatian Arbitration Law, Article 2(1) of the Serbian Arbitration Law, Article 1154(1) of the Polish Code of Civil Procedure, and in Article 1073(1) of the Netherlands Law on Civil Procedure (further: Dutch Arbitration Act) – if the place of arbitration is in the territories of the abovementioned states.[5] Thus, if the place of arbitration is situated in Germany or in Croatia, provided that the arbitration proceeding is governed by *i.e.,* ICC Rules of Arbitration (further: ICC Rules) or by the Rules of Arbitration and Conciliation of the Vienna International Arbitral Centre of 2006 (further: Vienna Rules), the mandatory rules of Book 10 on Arbitration of the German ZPO, respectively of the Croatian Law on Arbitration are also applicable; such clauses are thus often part of the Terms of Reference under ICC Rules.[6] According to the Indian case law, Part I of the Indian Arbitration and Conciliation Act must be applied in all arbitration in India and parties are free to deviate only to the extent permitted by certain derogable provisions.[7] From such a legal situation it could be inferred that the place of arbitration is the formal legal domicile of the proceedings as agreed by the parties or determined by the arbitral tribunal, and determines the competence of the local courts as well.[8]

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[5] The seat theory has most comprehensively been expounded by MANN, especially in his seminal work, *Lex facit arbitrum,* in: SANDERS (ed.), Liber Amicorum for Domke 157 (1967).

[6] Article 15, sec. 1 of ICC Arbitration Rules of 1998 – further: ICC Rules – permits the parties and the arbitrators to conduct the proceedings outside any specific national procedural law, except insofar as any such procedural arbitration law prescribes rules that have to be mandatory applied. Generally on the mentioned version of the ICC Rules, *see* CRAIG/PARK/PAULSSON, Annotated Guide to the 1998 ICC Arbitration Rules, with Commentary (1998). Prior text on the same subject, Article 11 ICC Rules of 1975, has been slightly modified by the version of 1998.

[7] *See Venture Global Engineering v. Satayam Computer Services* – Indian Supreme Court, January 10, 2008, available at <http://judis.nic.in/supremecourt/qrydisp.aspx?filename=30104> (as of April 2008).

[8] However, as has been pointed out, there are exceptions to the rule that arbitration law is applied only to arbitrations within the state of the law's promulgation. Some rules are applicable even when the arbitration takes place outside of the nation in which the law was promulgated or when the place of arbitration is has not been determined. This it true, for example, of rules in the Austrian Code on Civil Procedure regarding such matters as court intervention, receipt of written communications, the form of conclusion of the arbitartion agreement, the relationship between an arbitration agreement and an action before the state court, and the relationship between the arbitration agreement and interim measures by the state court (Article 577(2)). Similarly, Article 50 of the Swedish Arbitration Act provides *i.a.,* that its rules on taking evidence during arbitral proceeding in Sweden shall apply, under certain conditions, in respect of arbitral proceedings which take place abroad.

There are discussions on the meaning of Article V(1)(d) of the New York Convention – whether this rule affirms the principle of priority of party autonomy over the mandatory law of the seat of arbitration. If the answer is positive – *i.e.* party autonomy has priority – that would only have consequences within the enforcement stage.

The legal situation is different under French law, which does not define its territorial scope. Thus, once a French court is seized, it will apply Arts 1492 *et seq.* of the French CCP on international arbitration, and the French case law applying to such arbitration, without taking the place of arbitration into account.[9]

2.2 On Differences between Arbitration and Court Litigation

There are also substantial differences between arbitration and court litigation. The differences are very large and they mostly concern the role of party autonomy in arbitration,[10] very extensive and important powers and duties of arbitral tribunals, and the limited role of state court in arbitration.[11] I will focus on the analysis of these matters. Many other outstanding qualities of arbitration, such as the speed of proceedings, matters of cost, privacy and neutrality of forum, and last but not least, the finality of the award and available recourses, are beyond the scope of this paper.

2.2.1 Party Autonomy

The primacy of the principle of party autonomy, embodied in the Model Law, has been adopted in many modern arbitration laws as they are in a large degree based, *mutatis mutandis,* on the wording and spirit of the Model Law.[12]

That principle permeates all stages of arbitration, beginning with the conclusion of an arbitral agreement up to the challenges to an award and the recognition and enforcement of awards, both domestic and foreign. Therefore it is quite understandable that arbitration legislation, based largely on party autonomy, is intentionally

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[9] POUDRET/BESSON, Comparative Law of International Arbitration, n. 116 *et seq.* (2007).

[10] On some characteristic matters connected with litigation of international disputes in national courts, such as issues on court juristiction, conduct of procedure, application of substantive law and effects of foreign judgment, *cf.,* BUEHRING-UHLE, Arbitration and Mediation in International Business 12 *et seq.* (2006).

[11] For specific differences between court litigation and arbitration in intellectual property, compare *e.g.*<http://www.wipo.int/amc/en/arbitration/why-is-arb.html> (as of April 2008). On some characteristic differences between arbitration and court proceedings, *compare*, KARRER, Verfahren vor Schiedsgerichten und staatlichen Gerichten, in: Festschrift fuer Sandrock, 465 *et seq.* (2000).

[12] According to the UNCITRAL website, legislation based on the UNCITRAL Model Law on International Commercial Arbitration has been enacted in Australia, Austria (2005), Azerbaijan, Bahrein, Bangladesh, Belarus, Bulgaria, Cambodia (2006), Canada, Chile, in China: Hong Kong, Special Administration Region, Macao Special Administration Region, Croatia, Cyprus, Denmark (2005), Egypt, Estonia (2006), Germany, Greece, Guatemala, Hungary, India, Iran, Ireland, Japan, Jordan, Kenya, Lithuania, Madagascar, Malta, Mexico, New Zealand, Nicaragua (2005), Nigeria, Norway (2004), Oman, Paraguay, Peru, the Philippines, Poland (2005) Republic of Korea, Russian Federation, Singapore, Spain, Sri Lanka, Thailand, Tunisia, Turkey (2001), Ukraine, within the United Kingdom of Great Britain and Northern Ireland; within the United States of America: California, Connecticut, Illinois, Louisiana, Oregon and Texas; Uganda, and Zimbabwe. Available at <http://www.uncitral.org> (as of April 2008). For deviations from the UNCITRAL Model Law, *see e.g.,* as regard to the German law, BREDOW, Das neue 10. Buch der ZPO – ein Überblick, 1998 Betriebs-Berater (BB) 8 *et seq.* and regarding the Hungarian law, KECSKES, Recent Development in Hungarian Arbitration Law, paper presented at 15th Croatian Arbitration and Mediation Days, 7 (2007).

condensed – it merely provides a necessary framework for this method of dispute settlement. In comparison with rules of litigation in courts, arbitration rules are brief and focus on providing basic and general rules. Arbitration is therefore largely emancipated from the general national legal system.[13] Thus, while national arbitration laws have very often less than or around 60 articles (*e.g.* Swiss Statute on PIL, German ZPO, French NCPC, Dutch Arbitration Law, Croatian Law on Arbitration[14] and the UNCITRAL Model Law), national laws on civil procedure are very detailed and often contain several hundred articles, as does the Croatian Law on Civil Procedure, or even more than a thousand articles, as do the German ZPO, French NCPC, and Dutch Law on Civil Procedure.[15]

It is worth to note that, on the one side, the rules concerning the scope of party autonomy are well-balanced with arbitral tribunal competences and national courts having supportive and controlling functions, and on the other side, a party's autonomy is confined within limits set by applicable stringent (mandatory) rules.

The principle of the scope of party autonomy refers, in addition to the conclusion of arbitration agreement as it has been stated already above, *i.a.,* to the appointment, challenge and replacement of an arbitrator.

Parties are free to appoint the arbitrator directly or set up a mechanism for their appointment. Thus parties may make such an appointment directly; they may agree on the procedure of appoinment; or they may refer, in regard to this issue, to the application of arbitration rules of a permanent arbitral body, such as the ICC Rules of Arbitration, Arbitration Rules of the German Institution of Arbitration or the Rules of Arbitration of the Permanent Arbitration Court at the Croatian Chamber of Economy (further: Zagreb Rules) and WIPO Arbitration Rules (further: WIPO Rules). They are free to make only a partial reference to arbitration rules of a certain arbitral institution, and to provide their own procedural rules on other matters. An arbitration agreement could cover *e.g.,* interim measures of protection and the venue and language of arbitration. Pursuant to some arbitration laws, parties may determine the commencement of arbitral proceedings and the appointment of experts, as provided by German ZPO and in Croatian Arbitration Law. Thereby, of course, the mandatory provisions of the law applicable to the arbitration are preserved, as it expressly provided *e.g.,* in Article 3 of the WIPO Rules.

If parties fail to agree on these matters, national laws, arbitration rules and some international conventions, provide subsidiary rules on these matters which are

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[13] Such emancipation is already very precisely underlined by COING in: Materielles Recht und Verfahrensrecht in der internationalen Schiedsgerichtsbarkeit 20 (1972) – 'Je mehr die Schiedsgerichte von der Tätigkeit der Gerichte in einzelnen Staaten unabhängig sind, desto weniger sind sie naturgemaess zur Rücksicht auf die staatlichen einzelnen Ordnungen gezwungen, desto harmonischer können sie ihr eigenes Verfahren und ihre eigene Rechtsprechung gestalten.'

[14] For a general overview of characteristics of the Croatian arbitration law, *see* SAJKO, New Croatian 2001 Arbitration Law – General Analysis and Some Open Issues, in: Festschrift fuer Jayme, 793 *et seq.* (2004).

[15] For a very detailed overview on international civil procedure in over 30 countries and within the European Union, with an introduction to their judicial systems, *see* GRUBBS (ed.), International Civil Procedure (2003).

applicable within the state where the arbitral tribunal is seated. For an example of such provisions see Article 10 of the Croatian Law on Arbitration, Article 179 *et passim* of the Swiss Statute on PIL, Article 1035 *et passim* of the German ZPO, and Article 12(2) *et seq.* of the Bulgarian Law on International Commercial Arbitration. The same approach as for a subsidiary application of the law of the country where arbitration takes place is provided in Article V(1)(d) of the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 1958 (further: New York Convention).

In addition, in regard to the applicable substantive law governing the dispute, the choice of law rules differ from those applicable in courts. Thus, when considering contractual disputes with international elements, the courts in the European Union are bound to apply the Rome Convention on the law applicable to contractual obligations of 1980 (further: Rome Convention), which refers either to the governing law chosen by the parties, or in the absence of such a choice, to the law provided by subsidiary conventional rules.[16] In both situations, however, the reference is to made only to the law of a country – thus *e.g.,* the parties are not free to choose the *lex mercatoria* as the applicable law.[17]

Is an arbitral tribunal located in an EU member state bound to apply the Rome Convention, as a part of the *acquis communitaire*? Very persuasive arguments are produced supporting the thesis that the Rome Convention is not applicable to arbitration proceedings taking place in EU member states; arbitral tribunals must abide by their national arbitration rules on governing law, which provide more flexible methods of determination of the law applicable to the merits.[18]

Thus, parties may choose, pursuant to the Model Law, national arbitration laws, some arbitration rules, and the European Convention on International Commercial Arbitration of 1961 (further: European Convention): *applicable law*[19] and *rules of*

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[16] On the autonomy of the parties, *see* Article 3 of the mentioned Convention, and as to special rules for some contract, which were laid down for avoiding inequitable results – Articles 4(3), 9(6), 4(4), 5, and 9(5). The same approach is laid down in the Proposal for a Regulation of the European Parliament and the Council on the law applicable to contractual obligations (Rome I) of December 2005. In both legal instruments, arbitration agreements are outside their scopes; the exclusion applies not only to arbitration agreements but also to arbitration clauses contained within a contract.

[17] Croatia is not yet member of the European Union, and thus the Rome Convention is not applicable by its courts. However, the provisions of the Law on Conflict of Laws of 1991 on applicable law for contractual obligations (Articles 19 *et seq.*), have similarities with some conventional rules; more on the comparison of the Croatian private international law to the EU Law, *see* SAJKO, Towards Adaptation of the Croatian Private International Law to the EU Law – Selected Issues, in: *Melanges* F. Sturm, 1629 *et seq.*(Vol. II, 1999). As to applicable law on contracts in national conflict of laws rules, such provisions are provided *e.g.* in Article 1210 *et seq.* of the Russian Federation Civil Code of 2002, and in Article 116 *et seq.* of the Swiss Statute on PIL.

[18] *See* instead others, JUNKER, Deutsche Schiedsgerichte und Internationales Privatrecht (Article 1051 ZPO), in : Festschrift für Sandrock, 443 *et seq.* (2000).

[19] *See*, *e.g.* Article VII of the European Convention; Article 33 (1) of the UNCITRAL Arbitration Rules; Article 38 (1) of the Bulgarian Law on International Commercial Arbitration.

law.[20] Additional parties may empower the arbitrator/s to bring an award as *amiable composition*.[21] Besides, parties may authorize the arbitrator/s to render the award *ex equo et bono.*[22]

Party autonomy plays also a significant role in various other matters regarding an arbitral award, such as the issue of permissibility to make a partial and an interim award, and issues of the rendering of an additional award and the award's correction and interpretation, as it is stated, *e.g.,* in Article 18 *et passim* of the Croatian Law.

2.2.2 The Arbitrators' Role

Let us turn to a brief overview of an arbitrator's role and obligations, which fundamentally differ from those of a court.

Arbitrators are private judges who are engaged in arbitration proceedings because they have certain qualities or experience in a particular field. The source of their status is contractual. By conclusion of such a contract between arbitrators and party/parties, according to, *e.g.,* Swiss legal writing, a contract of arbitration (*receptum arbitrii; schiedsrichterlicher Vertrag; contratto di arbitrato)* with elements of a mandate contract (*Dienstvertrag*) is established. In several French court decisions, this relationship is qualified as a *sui generis* contract which is labeled as a *contrat d' investiture*.[23] If an arbitral institution appoints an arbitrator, he may be regarded as acting on behalf of this institution, which becomes a party to the contract of the arbitrator. French case law has refused to classify the arbitrator as an agent of the parties.

The very detailed powers and duties of the arbitral tribunal within arbitral proceedings are often set either as its primary power, or as its subsidiary powers exercised in those matters which are not settled by the parties.

An arbitral tribunal's primary powers are to rule on its own jurisdiction, to decide on the existence and validity of the arbitration agreement (*Kompetenz-Kompetenz* principle), and of course, to conduct arbitral proceedings and render an award.

Out of many examples of such subsidiary powers of arbitral tribunal, let me mention its duty to determine the applicable substantive law. Arbitral tribunal meth-

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[20] *See*, *e.g.* Article 28 (1) of the UNCITRAL Model Law; Article 27 (1) of the Croatian Arbitration Law; Article 1051 of the German ZPO; Article 603 (1) of the Austrian ZPO; Article 1054 of the Dutch Code of Civil Procedure; Article 28 (1) (b), (i) of the Indian Arbitration and Conciliation Act; Articles 1496 and 1497 of the French NCPC; Article 28 (1) of the Russian Arbitration Act; Article 187 of the Swiss Statute on PIL; Article 59 of the WIPO Rules and Article 17 of the ICC Rules.

[21] *See*, *e.g.*, Article VII of the European Convention; Article 28 of the UNCITRAL Model Law, Articles 1496 and 1497 of the French NCPC; Article 27(3) of the Croatian Arbitration Act; Article 603(3) of the Austrian ZPO; Article 33 of the Swiss Rules on International Arbitration (further: Swiss Rules); Article 17 of the ICC Rules.

[22] *See, e.g.*, Article 28 of the UNCITRAL Model Law; Article 1051 of the German ZPO; Article 603(3) of the Austrian ZPO; Article 33(2) of the UNCITRAL Arbitration Rules.

[23] For more on these issues and others, see FOUCHARD/GAILLARD/GOLDMAN, On International Commercial Arbitration, N 1113 *et seq.* (1999) and POUDRET/BESSON, *supra* note 9, n. 368 *et seq.*

ods of determining such governing law, provided that the parties failed to make such a determination, differs from that of the state courts. Without entering into details on these intricate issues, let us focus just on the legal situations when the courts of member states of the European Union have jurisdiction. According to Articles 4 *et seq*. of the Rome Convention, if the parties have not determined the governing law, they have to apply, the law of the country most closely connected with the contract.[24] The same method of a subsidiary applicable law is laid down, *i.e.*, in Article 20 of the Croatian Law on Private International Law of 1991,[25] in Article 117(2) of the Swiss Statute on PIL and in Article 1211(1) of the Russian Federation Civil Code – the courts have to apply the law of the country most closely connected with the contract.

Depending upon the applicable mandatory arbitration rule or international convention, the arbitral tribunal must apply either the law determined by the conflict of laws rules which it considers applicable;[26] the law of the state (*das Recht des Staates*) that it considers most closely connected with the dispute;[27] provisions of law or rules of law (*règles de droit*) that the arbitrator considers as appropriate[28] It is worth noting that the Hungarian Arbitration Act, Article 49(2) provides only that arbitrators must determine the applicable law, without giving any indication how to make such a determination. By contrast, according to the Chinese tradition the arbitral tribunal may decide the case as *amiable compositeurs* even if the parties have not authorized it.[29]

There is also a difference between state courts and arbitral tribunals as to the application of foreign mandatory rules. Under Article 7(1) of the Rome Convention of 1980, the effect may be given to such rules of another country with which the situation has a close connection, even though they are not part of the law designated by the choice of law rules of the forum.[30]

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[24] There is a general presumption that 'most closely connected' depends on characteristic performance, but in exceptional cases this presumption is rebutted – see Article 4(2), (3) and (5), Articles 5 and 6, Article 9(5) and (6) of the Convention.

[25] On governing law pursuant to the Croatian conflict of law, which is almost identical with the Conflict of law of the former Yugoslavia, *see* SAJKO, Questions on Private International Law Concerning Transfer of Technology Contracts, Hague-Zagreb Essays 6, 220 *et seq.* (1987).

[26] Article 28(2) of the UNCITRAL Model Law, Article VII of the European Convention, Article 50(3) of the Serbian Arbitration Law.

[27] Article 27(2) of the Croatian Law, Article 1051(2) of the German ZPO; on concretizing of the *closest connection* (*engste Verbindung*) according to German law, see SCHWAB/WALTER, Schiedsgerichtsbarkeit, Kommentar, Ch. 55, n. 9 (7th ed., 2005).

[28] Article 603(2) of the Austrian ZPO, Article 1496 of the French CCP, Article 1054(2) of the Dutch Arbitration Act. Thus, *e.g., p*ursuant to the mentioned Austrian provision, the arbitrators are not bound by any conflict of laws rules – they are entitled to determine the applicable law but not rules of law, such as the UNIDROIT Principles of International Commercial Contracts; *see also* , MELIS, Austria, in: Intl. Handbook on Commercial Arbitration, Suppl. 50, 25. (Oct. 2007).

[29] *Compare*, SHENG CHANG/HILMER, Chinese Law v. UNCITRAL Model Law, 9 International Arbitration Law Review 5 (2006).

[30] Three states – Germany, Luxembourg and the United Kingdom – however, have made the reservation according to which their courts cannot take foreign mandatory rules into account.

Although in international arbitration it is settled that the application of the Rome Convention *in toto* is not acceptable, as it has been already pointed out above (*ad* 2.2.1. of this paper), in my opinion it might be possible to apply Article 7(1) of the Convention by analogy. However, if this is the case, arbitral tribunals' application of foreign mandatory rules (*loi de police* or loi d' application immediate), which prevail over the ordinary choice of law rules, exclusively depends on *lex loci arbitri.*

According to the Swiss Federal Tribunal, an international arbitral tribunal is not bound to apply such rules of a third country – although Article 19 of the Swiss Statute on PIL provides that such rules shall be taken into consideration (*Beruecksichtigung zwingender Bestimmungen eines auslaendischen Recht)* – when the non-observance of this law is not such that it is a violation of public policy in the sense of Article 190(2)(e) of the Swiss Statute on PIL.[31] Commentary suggests that the only public policy that would be sufficient to impose the application of a law not chosen by the parties would be of truly international, transnational nature, aiming at protecting interests worthy of protection in a supranational perspective.[32]

Arbitrators are not only granted rights but also assigned duties, both with regard to the parties and the arbitral institutions. They shall guarantee equal protection of parties and their rights to be heard in adversary proceedings, and those duties cannot be derogated by the opposing party's agreement. In other words, equal treatment of parties and the right to be heard is guaranteed by the law, and the arbitral tribunal must abide by that principle, regardless of the procedure chosen by the parties.[33]

It is a very widely accepted legal view that a contractual relation exists between the arbitrator and the parties, and that thereby the arbitrator assumes different obligations, such as a duty to act equitably and impartially, to pursue functions until proceedings conclusion, and a duty of confidentiality. The latter obligation, although identified during preparation of the text of the Model Law, was left outside the adopted text.[34] However, it is only sporadically addressed in some arbitration law and rules – see *e.g.,* Article 11 of the Hungarian Law on Arbitration,[35] Article 34 of the AAA International Arbitration Rules and Article 43 of the Swiss Rules, Article 30(2) of the London Court of International Arbitration Rules. It has to be

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[31] *See* Swiss Federal Tribunal of December 30, 1994, DFT 4P 115/1944 (English translation in: Yearbook Comm.Arb XXI, 172 *et seq*. (1996)), and the decision of the same Tribunal of May 7, 2004 – 4C.332/2003, DFT 130 III 620 *et seq*. See the whole texts of the mentioned decisions, available at <www.bger.ch> (as of April 2008).

[32] *Compare* FOUCHARD/GAILLARD/GOLDMAN, *supra* note 23, at notes 1515, 1519, 1525, 1528 and 1549, n. 47.

[33] *See, e.g.*, Article 17 of the Croatian Arbitration Law, Article 182(3) of the Swiss Statute on PIL, Article 18 UNCITRAL Model Law, as well under Article 33(1)(a) of the English Arbitration Act.

[34] *See* more about this issues discussed during drafting of the Model Law, in: HOLZMANN/NEUHAUS, A Guide to the UNCITRAL Model Law on International Commercial Arbitration, 1148 *et seq* (1989); in the ICC Rules there are several very detailed provisions on arbitrator's duties – Articles 7(2),(5) and (7); 15(2); 18(1), (2), and (4); 20(1), (2) and (6); 27; 31(3); 35.

[35] Pursuant to this Article, it is the duty of the arbitrator to maintain secrecy both during and after termination of arbitral proceedings.

mentioned that in the ICC Rules there are no general provisions on confidentiality; there are only two references to confidentiality that do affect certain persons involved in the process – Article 20(7) of the Arbitration ICC Rules and Article 6 of the Appendix 1 of the mentioned Rules.[36] From my personal experience as arbitrator, I am aware that sometimes within the Terms of Reference drawn up by the arbitral tribunal under Article 18 of the ICC Rules, the arbitral tribunal and the parties agree to keep arbitration proceedings confidential and to place an obligation on members of the Tribunal not to participate in or give information for the purpose of assisting any legal proceedings related to the arbitration or any award unless compelled to do so by a court of a competent jurisdiction.

In some arbitration rules, such as in Article 8 of the Vienna Rules, there are express provisions on the exclusion of an arbitrator's liability for any act or omission in relation to arbitration proceedings, and Article 66 of the Dutch Arbitration Institute Arbitration Rules.[37]

2.2.3 On State Courts Functions

As already stated above, state courts have a limited but important function within arbitration. The extent of judicial control is provided in different instances and is limited to matters specified by national laws and international conventions. Many arbitration laws, in regard to court proceedings, reflect Article 5 of the UNCITRAL Model Law,[38] which provides that no court shall intervene except where so stipulated in the respective laws.[39] Similarly, under s. 1(c) of the English Arbitration Act, the court should not intervene in the arbitration except as provided by its Part I, which is applicable only when the seat of the arbitration is in England, Wales and Northern Ireland (s. 2(1) of the Act). Some other arbitration laws do not use such a formulation, they just enumerate matters which are subject to such a control, as the Swiss Statute on PIL and the French NCPC.[40] According to many national laws, parties may address the courts when seeking assistance in appointing arbitrators,

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[36] WHITESELL, Confidentiality in International Arbitration: the ICC International Court of Arbitration Perspective, in: *Liber Amicorum* Mitrović, 685 *et seq.* (2007); BUEHLER/WEBSTER, Handbook of ICC Arbitration, 1-48–1-55 (2005). For a comparative law overview on this issues, *see* JOLLES/CANALS DE CENDIEL, in: KAUFMANN-KOHLER/STUCKI (eds.), International Arbitration in Switzerland, 103 *et seq.* (2004). For more on the status of the arbitrators, *see* The Status of the Arbitrator, ICC ICA Bulletin, Spec. Suppl., 1995, analyzing different aspects of arbitrators rights and duties.

[37] About solutions in comparative law on arbitrators' liability, *see* instead others, BERGER, International Economic Arbitration 236 *et seq.* (1993) and POUDRET/BESSON, *supra,* note 9, at n. 373 *et seq.*

[38] For details on legislative history of that Article, *see* HOLZMANN/NEUHAUS, *supra* note 34, at 216 *et seq.*

[39] *See, e.g.,* Article 1026 of the German ZPO, Article 7 of the Serbian Arbitration Law, Article 7 of Hungarian Arbitration Act, Article 6 of the Bulgarian Arbitration Law, Article 578 of the Austrian Code of Civil Procedure and Article 41(1) of the Croatian Law on Arbitration.

[40] More about courts role in arbitration in France, *see* HASCHER, Le juge et l' arbitrage: l'example français, in: *Liber Amicorum* Mitrović, 283 *et seq.* (2007). As to powers of the courts within the English Arbitration Act, *see* A. TWEEDDALE/K. TWEEDDALE, Arbitration of Commercial Disputes, n. 25.01 *et seq.* (2005).

terminating an arbitration agreement. Moreover, they may request provisional measures, and may also seek court intervention regarding the challenge of arbitrators, termination of the mandate of arbitrators, and setting aside and recognition and enforcement of awards.

In addition, consistent with Article II(3) of the New York Convention, at the request of the respondent, a court seized of an action in a matter in respect to which the parties have concluded an arbitration agreement shall declare its incompetence and dismiss the claim, unless it finds that the said agreement is null and void, inoperative or incapable of being performed.

3. Arbitrability in General and with Special Reference to Intellectual Property Disputes

3.1 General issues

Both *subjective* and *objective* arbitrability are conditions of the validity of the arbitration agreement. Our further analysis is focused only on the *objective* arbitrability which determines the range of arbitrable disputes, *i.e.,* determines generally which disputes can be submitted to arbitration, including disputes on intellectual property rights. Arbitrability restricts the autonomy of the parties. In the Swiss case law, arbitrability is defined as a quality of the subject of the dispute, *un condition de validité de la convention d' arbitrage*.[41] This concept has to be distinguished from the scope of the arbitration agreement, *i.e.,* from the question of what disputes fall within the terms of particular arbitration agreement.

In the UNCITRAL Model Law there is neither a definition nor a provision on arbitrabilty, as the drafters could not reach consensus. However, Article 1(5) of the Model Law permits each implementing state to exclude from its scope of application all disputes which are not, in that state, capable of being submitted to arbitration, or are arbitrable only according to provisions other than those of the Model Law. Thus, it is up to the national arbitration laws to set criteria for arbitrability of disputes.

In comparative arbitration law there are different approaches to determining arbitrability. Most often, they directly consider the characteristics of claims, an approach which could be labeled as arbitrability *ratione materiae.* In addition, arbitrability limits are sometimes set by considering whether a court or administrative body has exclusive jurisdiction over a matter – arbitrability *ratione jurisdictionis.* If a law provides for exclusive jurisdiction over certain kinds of disputes, they are not arbitrable.

According to some modern laws, arbitrability is extended to all pecuniary claims (*cause de nature patrimoniale; vermoegensrechtlicher Anspruch; pretesa patrimoniale) – e.g.,* Article 177(1) of the Swiss Statute on PIL, Article 1030(1) of the German ZPO and Article 582(1) of the Austrian Code on Civil Procedure. According to the last two mentioned laws, non-pecuniary claims are arbitrable as

[41] Decision of the Swiss Federal Court of 23 June 1992 – DFT 118 II 353 *ad* 3a.

well, if parties are capable of concluding a settlement upon the matter of the dispute. These laws are example of a general tendency in both statutory and case law to enlarge the range of arbitrable disputes in such a manner.

Returning to Article 177(1) of the Swiss Statute on PIL, it is a widely accepted view that both its rules regarding probate proceedings and inheritance litigation on immovable property, immovable property disputes and consumer contracts, and some provisions of the Swiss Civil Code providing mandatory *fora* are not binding on the question of arbitrability.[42]

Other legislation, case law, and commentary provide variations on the criteria for arbitrability. Matters considered arbitrable include, under Chinese law, contractual disputes and other disputes over rights and interests in property;[43] under Bulgarian law, civil property disputes;[44] under Russian law, disputes arising from contractual and other civil-law relations in foreign trade and other types of international economic relationships;[45] and under Spanish law, disputes relating to matters within free disposition (*libre disposition*) of the parties.[46] Swedish and Hungarian law provide that matters in respect of which the parties may reach a settlement are arbitrable;[47] Croatian law provides that matters regarding rights of which parties may freely dispose are arbitrable;[48] arbitrable disputes include not only disputes regarding pecuniary claims, but also those regarding non-pecuniary claims in respect to which parties may reach a settlement (*Vergleich*), *i.e.,* conclude such a private law contract defined by the law governing such a contract. If that is Croatian law, it is governed by Articles 150 *et seq*. of the Croatian Law on Obligation of 2005. In Article 1020(3) of the Dutch Arbitration Law, it is provided that the arbitration agreement shall not serve to determine legal consequences which parties cannot freely dispose.

Some commentators have expressed the opinion that the formulations 'rights of which parties may freely dispose' and 'claims in respect of which parties may reach a settlement' are synonymous.'[49] I am also of this opinion. However, there is a difference between the criterion of 'the pecuniary nature of the dispute' and that of 'the possibility on free disposition of a right.' The former is a mandatory and well defined substantive rule that avoids the difficulties of a conflict of law approach, whereas the latter determines arbitrability by applying the *lex causae*, *i.e.* the law governing the rights *in casu.* Expressed otherwise, the latter criterion would presup-

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[42] More about it, BRINER, in: BERTY(ed.) International Arbitration in Switzerland, 320 *et seq.* (2000).

[43] *See* Article 2 the Chinese Arbitration Law of 1994. In this Law there are specific provision on disputes which may not be arbitrated; these are disputes on the status of physical persons – marital, adoption, guardianship, support and succesion and administrative diputes (Article 3).

[44] Article 1(2) of the Bulgarian Law on International Commercial Arbitration.

[45] Article 1(2) of the Russian Arbitration Act.

[46] Article 2(1) of the Spanish Law on Arbitration.

[47] Article 1 of the Swedish Arbitration Act, Article 4 of the Hungarian Law on Arbitration.

[48] Article 3(1) of the Croatian Arbitration Act.

[49] For such views in comparative law, *compare*, TRIVA/UZELAC, Hrvatsko arbitražno pravo (Croatian Arbitration Law), 18 *et seq.* (2007).

pose a conflict of law solution, since the definition of a legal relationship submitted to arbitration requires an examination of the substantive law applicable to it.[50]

There are provisions in several arbitration laws on the exclusive jurisdiction of courts and/or administrative authorities as an obstacle to arbitrability. Pursuant to Article 5(1) of the Serbian Arbitration Law, pecuniary claims cannot be settled by arbitration if they are submitted to the exclusive courts jurisdiction, and Article 1030(2) and (3) of the German ZPO contains an exception to the general principle of arbitrability for matters over which a court has exclusive jurisdiction, such as disputes regarding leases for residential accommodation and employment contracts. Article 4 of the Hungarian law also contains an explicit exception to arbitrability for matters over which a court has exclusive jurisdiction. Such rules preserve a state monopoly over resolving some specific types of disputes.

According to Article 3(2) of the Croatian Arbitration Act, exclusive Croatian court jurisdiction is an obstacle for arbitrability only for arbitration that takes place in a foreign country,[51] and has no importance in determining the arbitrability of the same types of disputes when the arbitration takes place in Croatia. Such a limitation on arbitrability cannot be productive, and its aim – to hinder arbitration abroad – cannot always be successfully sanctioned. Let us illustrate this assertion by considering the following hypothetical case. The parties, a Croatian company and a Belgium company, have concluded, under the Vienna Rules, an arbitration agreement on settlement of disputes arising from a contract regarding immovable property in Croatia; the designated location of arbitration is Vienna. The arbitral proceedings have been terminated by the rendering of the award. If recognition and enforcement of such an award would be sought in Germany, it would be granted under conditions set in the New York Convention (Article 1061 of the German ZPO). In regard to the arbitrability issue, Article V(2)(a) of the Convention provides the application of *lex fori,* thus, *in casu* German law would be applicable.[52] In the same case, the abovementioned Croatian rule on arbitrability would be applied, also in accordance with the cited rule of the Convention, only if the recognition and enforcement of that award would be sought in Croatia.

Under Article 1(2)(d) of the Council Regulation on Jurisdiction and the Recognition and Enforcement of Judgments in Civil and Commercial Matters No. 44/2001 arbitration is outside the scope of this Community instrument. However, as in proceedings which are, *i.a.*, concerned with registration or validity of patents, trade marks, design or other similar rights required to be deposited or registered, Article 22(4) of that Regulation provides for exclusive jurisdiction of the courts of the Member state in which the deposit or registration has been applied for, that Article's impact on arbitrability must be examined, *i.e*., whether Article 22(4) constitutes a

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[50] *Compare*, PODRET/BESSON, *supra* note 9*,* at 332*; see* also Swiss Federal Court, June 23, 1992 – ATF 118 II, 353 *et seq.*; English translation, Yearbook Comm. Arb'n, XX, 766 *et seq.*(1995).

[51] For more about this issue, see SAJKO, Das neue kroatische Recht der Schiedsgerichtsbarkeit, in: Razprawy pravnicze Pazdan (Festschrift Pazdan), 487 *et seq.*(2005).

[52] Of course, the *lex fori* for determining of the dispute arbitrability would be applied in all member states of the New York Convention when recognition and enforcement of the mentioned Austrian arbitral award would be sought there.

barrier to arbitrability in such cases.[53] Without entering into all details on the scope of application of this rule, let me give a brief overview of these issues.

The exclusive jurisdiction embraces disputes regarding the proceedings on registration or validity of patents, trade marks, designs, or other similar rights required to be registered or deposited.[54] By contrast, disputes regarding intellectual property rights arising from contracts are not within this exclusive jurisdiction.[55] Neither are claims for infringement of such rights;[56] claims on granting, revocation or remuneration of compulsory licenses; infringement of rights where the defendant raises invalidity as a defense; or claims for a declaration on non-infringement where the author alleges invalidity of the rights.[57]

Is an arbitrator sitting in country X required to take into account foreign legal restrictions on arbitrability, *e.g.,* of the law of the probable place of enforcement of the arbitral award? In Swiss commentary it is argued that the answer has to be positive, if such foreign restrictions qualify as *loi de police international* or *loi d' application immédiate*. However, in *Fincantieri* case, decided in 1992, the Swiss Federal Tribunal held that arbitrability may not be denied for the sole reason that mandatory provisions or another legal system imply that the claim which is raised is invalid or impossible to enforce.[58]

3.2 On Arbitrability of Intellectual Property Disputes

Having presented a general analysis of the arbitrability of intellectual property disputes, let us turn to the arbitrability of such disputes under various national laws.

The issue of the arbitrability of intellectual property rights must be connected with the legal nature of such rights and its *erga omnes* application. These rights are granted by states, mostly by their administrative organs, in the exercise of their sovereignty. Thus, *e.g.,* pursuant to Article 15 of the Croatian Patent Law of 2003 (amended in 2007), a patent is granted through an administrative procedure by the Croatian State Intellectual Property Office. The same organ, according Article 80 and 86 of that law, has jurisdiction over patent revocation and declarations of patent nullity. On the other hand, as to civil law protection, according to Article 95 a) an

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[53] Such exclusive jurisdiction was already provided for in the Article 16(4) or the Brussels and Lugano Convention, but the mentioned Regulation formulation embraced in addition the rights whose register is regulated by a Community instrument.

[54] See ECJ Case C-288/82, *Ferdinand Duijnstee v. Lodewijk Goderbauer*, [1983] ECR 3663, 3676 para. 19. *Cf.*, *i.a.,* MAGNUS/MANKOWSKI (ed.), Brussels I Regulation, Article 22, n. 63 (2007).

[55] *See*, *e.g.,* FAWCETT/TORREMANS, Intellectual property and Private International Law 19 *et seq.* (1998).

[56] *See* KROPHOLLER, Internationales Privatrecht, Article 22, n. 50 (5th ed., 2004).

[57] For all details as regard the case law of the European Court and legal writing, *see supra* note 54, at n. 64 *et seq.*

[58] Affirmative, BUCHER/BONOMI, *Droit international privé,* 323 (2001). On this issue compare deliberation of SCHNYDER, Rechtskollision durch Verfahrenskollision – Herausforderung fuer die internationale Schiedsbarkeit der Schweiz, in: Rechtskollisionen, Festschrift Heini, 376 *et seq.* (1995); Swiss Federal Tribunal – ATF II 118, 353 – further data on this decision, *supra* note 50. However, in this case the problem was not of determination of arbitrability *ratione materiae*, but *ratione personae.*

inventor could lodge a claim before a competent court asking for a declaratory judgment on its patent invention right, whereas Article 95 e) provides, *i.a.,* that the patent holder could ask for a court protection against infringements of his rights. There is no doubt that not only the private law disputes mentioned above are arbitrable but also all disputes arising from contractual relations between licensors and licensees, whereby it would be irrelevant, under the Croatian approach to arbitrability whether the place of arbitration would be in Croatia or abroad. As for trademarks, according to Article 4 of the Trademark Law of 2003 (amended in 2007), they have to be registered before the same Croatian Office that is competent for nullity proceedings. Since Articles 75 and 76 only grant the court nonexclusive jurisdiction over trademark infringements and damages arising out of such infringements, it could be inferred that such disputes are arbitrable as well.

As to disputes over contracts relating to copyrights and extra-contractual infringements of such rights, their arbitrability is generally accepted in many national laws, which is in line with the overall policy in favor of arbitration.[59]

In comparative law, the range of arbitrability of intellectual property disputes is widening. Without entering into detailed analyses of different legal systems, let us just point out that the champions of liberalism in this field are Swiss[60] and American law, whereas on the other side, a very restrictive approach to arbitrability is found in France, Italy and the Netherlands. The Dutch law contains an exclusive reservation of the subject matter to the jurisdiction of the Dutch courts, which is usually regarded as evidence of non-arbitrability under Dutch law.[61] However, in an oft-quoted ICC arbitration case, the arbitral tribunal decided by application of French law that although national courts have exclusive jurisdiction over disputes about the issuance, cancellation or validity of patents, that does not foreclose arbitration jurisdiction over disputes concerning exploitation of patents.[62]

3.3 Applicable Law for Arbitrability

The rules on arbitrability analyzed above are substantive, material rules of private international law (*règles materiélles)* and not conflict of law provisions. The critical issue in international arbitration is to determine the applicable law that governs such

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[59] *See e.g.* for Croatian law, SAJKO, *supra* note 53*,* 485, and for the Canadian law – Supreme Court of Canada, March 21, 2003 – excerpts in: 6 International Arbitration Law Review, n. 42 (2003).

[60] Thus, arbitration awards are recognized by the Swiss Patent and Trade Mark Office as a basis for revoking the registration of patents. *See* BLESSING, Arbitrability of Intellectual Property Disputes, 12 Arb. Int. 200 (1996).

[61] Issues of arbitrability of intellectual property disputes are very extensively analyzed in legal writing. *Compare* POUDRET/BESSON, *supra* note 9, at 302 *et seq.*; BLESSING, *supra* note 60, at 191 *et seq.*; PERRET, L'arbitrabilite des litiges de propriete intellectuelle; une analyse compare, ASA Bul., 3 *et seq.* (2003); LEW, Final Report on Intellectual Property Disputes and Arbitration, ICCBull, Vol. 9/1, 37 *et seq.* (1998); BERGER, *supra* note 37, at 189 *et seq.*; LEW/MISTELIS/KROLL, Comparative International Commercial Arbitration, n. 9-64 et seq. (2003).

[62] *See* excerpt of the ICC Interim Award No. 6709 (1991), ICC Bull. Vol. 1 (1994); generally on French law on arbitrability in mentioned matters, FOUCHARD/GAILLARD/GOLDMAN, *supra* note 23, at n. 583.

arbitrability. That issue may arise at different stages of proceedings: before the arbitral tribunal; before a court from whom the enforcement of arbitration agreement is sought; before a court that decides whether an award will be set aside; and finally, before a court from which enforcement of an award is requested.

An arbitral tribunal, as has already been pointed out several times above (see *supra ad* 2.1. of the paper), is bound to apply mandatory provisions of the *lex arbitri* of the place of arbitration. Therefore, it has to respect the provisions on arbitrability of that state, and examine them without a motion by the parties. Such applicable law for arbitrability *i.e., lex fori,* has to be inferred from Article 15(1) of the Croatian Arbitration Law, and is widely accepted in comparative arbitration law, case law and legal writing.[63] However, as we have already pointed out above (*supra ad* 3.1. of the paper) one must distinguish between two different criteria of arbitrability: the *pecuniary nature of the dispute* and *the possibility to dispose of rights*. The former criterion is a substantive law rule, and the latter refers, for determination of arbitrability, to the law governing rights *in casu*, *i.e.,* to *lex causae* of such rights.[64]

Another approach, under which the issue of arbitrability before arbitral tribunal has to be decided according to the law chosen by the parties to the arbitration agreement,[65] in my opinion should not be accepted, as it does not take into account that the rule on the arbitrability of *lex arbitri* is stringent and that it aims to restrict the autonomy of the parties.

What about application of the governing law on arbitrability by the courts that have jurisdiction over the setting aside of arbitral awards or over the recognition and enforcement of foreign awards?

As the courts are bound to all mandatory rules of their *lex fori*, they have to apply also their rules on arbitrability that are set forth in their respective arbitration laws or in international conventions dealing with this subject matter. For the stage of setting aside of arbitral awards, such a solution is explicitly provided in many national arbitration laws – Article 36(2)(a) of the Croatian Arbitration Law, Article 1059(2) (a) of the German ZPO, just to mention these examples out of many others – and is very widely accepted.

In regard to the enforcement stage, the application of *lex fori* is provided by Article V (2)(a) of the New York Convention.

In my opinion, the same method of determination of applicable law must be adopted by the application of Article II(3) of the New York Convention, which provides – when a court is seized of an action in a matter in respect to which parties

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[63] For the Croatian law, *see* SAJKO, Međunarodno privatno pravo (Private International Law), 293 *et seq.* (4th ed. 2005); ICC case no. 4604, in: ARNALDEZ/DERAIN/HASCHER, ICC Awards 1986-1990, 545; further ICC case no 6149, in: Yearbook Comm.Arb'n, XX, 41 *et seq.* (1995); LEW/MISTELIS/KROLL, *supra* note 61, at n. 9-29.

[64] *Compare*, BUCHER, Le novel arbitrage international en Suisse , n. 88 (1988), as to application of *lex causae,* if the criterion is *possibility to dispose of rights*: 'Il convient donc de se référer à la loi applicable au fond du litige, loi qui est déterminée conformément aux règles de droit internattional privé appliquées par le tribunal arbitral.'

[65] *See* more about such solutions, *e.g.,* CHUKWUMERIJE, Choice of Law in International Commercial Arbitration 54 *et seq.* (1994).

have made an arbitration agreement – that jurisdiction must be denied if the arbitration agreement is null and void, inoperative or incapable of being performed. Although in this Convention rule there are no indications on applicable law, the Italian courts,[66] the Belgium *Cour de cassation*[67] and the U.S. Supreme Court[68] have applied its *lex fori.* Such an approach is a logical consequence of the courts' obligations to apply in all proceedings the stringent rules on arbitrability, thus not only at the stage of award enforcement, which is explicitly provided in Article V(2) (a) of the New York Convention, but also at the pre-award stage *i.e.*, within the framework of Article II(3) of that Convention. This is because, although Article II and V of the Convention concern two different aspects of arbitral proceedings, they require the same interpretation.[69]

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[66] Corte di cassazione, April 27, 1979, Yearbook Comm.Arb'n, VI, 229 *et seq.*(1981), followed by the decisions of Bologna Court of first instance, July 18, 1987, Yearbook Comm.Arb'n, XVII, 534 *et seq.* (1992) and of Genova Court of Appeal, February 3, 1990, Yearbook Comm.Arb'n, XVII, 542 *et seq.* (1992).

[67] Hof van Cassatie*,* Decision of October 15, 2004, Yeabook Comm. Arb'n XXXI, 587 *et seq.* (2006).

[68] *Mitsubishi v. Solar Chrysler-Plymouth* – U.S. Supreme Court, July 2, 1985, 105 SCR (1985), Yearbook Comm.Arb' n, XI, 555 *et seq.* (1986).

[69] In this sense the decision of the Corte di cassazione, *supra* note 66, 230.

Harmonizing Patent Infringement Damages: A Lesson from Japanese Experiences

Toshiko Takenaka

1. Introduction

35 U.S.C. §284 makes it clear that the goal behind awarding damages is to guarantee patentees adequate compensation for infringement. What constitutes adequate compensation, however, may vary from one industry to another within the same country. The discussion over a proposal to revise the U.S. patent statute to include a provision defining damages highlighted the differing views on adequate compensation held by the pharmaceutical industry and the IT industry. The adequacy of damages for infringement may vary even more significantly from one country to another, particularly between common law countries and civil law countries.

Despite the expected difference in the adequacy of patent infringement damages, the Japanese government was alarmed by a huge gap between damages awarded by U.S. as opposed to Japanese courts. To make Japanese damages more adequate for the purpose of fully compensating patentees, Japanese patent law was revised in 1998 through the adoption of U.S. case law doctrine. Early cases awarding big damages led the Japanese patent community to believe that there had been a significant impact as a result of the 1998 revision, although more recent statistics indicate that the impact was much smaller than expected. These experiences in Japan should be useful for European countries, which are currently undergoing an overhaul of patent systems to harmonize their infringement remedies through EU directives on IP enforcement and the European Patent Litigation Agreement. Thus, this article will review Japanese patent infringement damages from a comparative perspective and evaluate the impact of Japan's 1998 patent law revision on infringement damages.

2. The Theoretical Frameworks

Statistics cited by the Japan Patent Office (JPO) revealed a huge difference: the average damages awarded by U.S. courts are two hundred times more than those of Japanese courts.[1] A comparison of U.S. and Japanese cases involving similar facts and claims confirmed the huge difference resulting from Japanese courts' preference to award damages equal to a reasonable royalty which is equal or less than the industry average if the patentee made and sold the patented invention exclusively.[2]

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[1] Industrial Property Right Committee (IPR Committee), Japan Patent Office, Invitation of Comments on the Proposal for Revising Patent Law and Other Industrial Property Laws, 25 (1997).

[2] TAKENAKA, Patent Infringement Damages in Japan and the United States: Will Increased Patent Infringement Damage Awards Revive the Japanese Economy?, 2 Wash. U. J.L. & Pol'y 309 (2000).

One may wonder how this huge difference resulted from the fundamental difference in legal structure under U.S. and Japanese tort law. However, the theoretical frameworks used by the two jurisdictions to determine the scope of damages are not very different. In determining the scope of damages, both U.S. and Japanese courts use a 'but for' test to establish the cause in fact and then use a 'foreseeability' test to further limit the scope to the legal cause or adequate cause (soutou inga kankei).[3] The concept of 'foreseeability' or 'legal/adequate cause' is commonly used to define the boundary between those causes which are closely connected with the result and others which are only remotely connected with the result; this has the effect of limiting responsibility for the consequences of one's act.[4] The only difference is that U.S. courts' analysis includes two distinct steps for each course because a jury decides the cause in fact and a judge decides the legal cause. In contrast, Japanese judges decide both legal and factual causes and the steps to analyze the two types of causes are not distinct.[5] This difference aside, the process used to analyze the scope of damages is similar.

Measurements used by the two jurisdictions are also similar. To overcome the difficulty in calculating infringement damages, both U.S. and Japanese patent law provide options to calculate damages resulting from infringement.[6] The two options for measuring patent infringement damages, lost profits and reasonable royalties, are common to the Japanese and U.S. patent statutes. A third option of defendant's profits was also once available under U.S. patent law but has since been eliminated.[7]

3. Tort and Patent Policies

3.1 General Tort Policy

In contrast to the similarity of the theoretical framework, there is a huge difference in tort and patent policies under U.S. and Japanese laws. The legal or adequate cause, which defines the boundary of liability, is set upon the basis of some social idea of justice or policy in a judge's mind.[8] Accordingly, the huge difference in damages in the U.S. and Japanese jurisdictions is likely the result of different senses of justice and policy in the two societies that cause judges to apply the same framework in a radically different manner.

The most significant difference between the U.S. and Japanese legal systems is the role of individuals in enforcing the law. The Japanese legal system more clearly separates the functions of criminal sanctions and civil remedies.[9] Under the Japanese legal system, the government exclusively controls punishment and deterrence

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3 SHINOZUKA ET AL., Civil Law 9: Tort 97 (1993).
4 IKUYO, Tort Law, 122 *et seq.* and 134 (1993).
5 HIRAI, Theory of Damage Compensation Law 429 *et seq.* (1997).
6 Patent Law, Art. 102; 35 U.S.C. § 284.
7 CHISUM, Chisum on Patents, § 20.02[3].
8 KEETON ET AL., Prosser & Keeton on the Law of Torts, §41 at 264 (5th ed. 1984).
9 TANAKA/TAKEUCHI, The Role of Private Individuals in Enforcing law, (1987).

of tortious acts. The individual's role in maintaining public order is limited. This clearly affects the function of damages under the general tort theory. Under Japanese tort law, tort damages function purely to restore the tort victim to the condition he would have been in but for the tort.[10] The Japanese civil legal system does not provide for increasing damages depending on the character of the tortious act, such as willful tort. Because deterrence is not a function of tort damages, Japanese courts do not distinguish tort damages from breach of contract damages. Further, Japanese courts have adopted the principles originally developed for defining contract damages and applied them directly to measure loss resulting from a tort.[11] As a result, contract principles control the measurement of loss resulting both from a tort and a breach of contract.

In contrast, the separation between the functions of tort damages and criminal sanctions under the common law tradition, which the U.S. legal system follows, is not as clear as that of the Japanese system.[12] The U.S. legal system combines criminal sanctions and civil remedies to deter people from engaging in tortious acts. Under the U.S. system, individuals are encouraged to actively participate in enforcing the law by bringing a case to court. Thus, civil remedies of damages are used not only to compensate but also to deter tortious acts.

Under U.S. law, damages are classified as either compensatory or punitive.[13] Although the function of compensatory damages is to compensate tort victims, the common law tradition distinguishes contract damages from tort damages[14] and the U.S. courts traditionally apply different principles to measure tort and contract damages.[15] With respect to the burden of proof, to prevent a wrongdoer from benefiting from the difficulty of proving causation between the tortious act and damages, U.S. courts require less certainty in the proof of damages for a tort than in the proof of damages for a breach of contract.[16]

The policy of encouraging individuals to enforce the law is further enhanced by punitive damages that may be awarded beyond the amount assessed to compensate actual damages. Punitive damages function both to punish and deter torts and to financially assist tort victims by covering attorney fees and other costs of bringing a case to court.[17] This aspect contrasts sharply with breach of contract damages, where breaches are not distinguished by 'willfulness' and no punitive damages are awarded.[18]

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[10] KATOU, Tort 3 (1974).
[11] Judgment of the Great Court of Cassation, May 22, 1926, 5 Minshuu 386.
[12] TANAKA/TAKEUCHI *supra* note 9.
[13] DOBBS, Remedies: Damages, Equity, Restitution (1993); YORK ET AL., Remedies: Cases and Materials (1992).
[14] BYROM, Do Damages Depend on the Same Principles Throughout the Law of Tort and Contract?, 6 U. Queensland L.J. 118 (1968).
[15] *Felder v. Reeth*, 34 F. 2d 744, (9th Cir. 1929).
[16] Restatement (Second) of Contracts, §351, cmt. a (1979).
[17] DOBBS, *supra* note 13, at 311.
[18] Restatement (Second) of Contracts, Introductory Note (1979).

3.2 Patent Law Policy

Another source of difference comes from patent policy. Prior to the 1998 revision, patent law provisions for measuring patent infringement damages also reflected the policies of Japanese general tort law. Article 102 of the pre-1998 law provided two options for calculating patent infringement damages: (1) defendant's profits;[19] and (2) a reasonable royalty.[20] Patentees could also claim damages in the form of lost profits under the general tort provision of the Civil Code,[21] but the patent statute did not expressly provide that option until the 1998 revision introduced a presumption of causation for lost profits.[22]

The language of the pre-1998 Article 102 indicated that the legislature was more concerned about protecting innocent infringers than about protecting patentees. This emphasis was expressed by paragraph 3 of that provision, which gave Japanese courts the discretion to limit damages to an amount equal to a reasonable royalty, even if actual damages were higher, unless the infringer willfully or with gross negligence engaged in infringement.[23] Thus, Japanese patent law did not guarantee a full compensation of damages because courts were allowed to reduce the amount assessed to compensate the patentee's loss. One can interpret this provision, at least under the pre-1998 Article 102, to support that reasonable royalty has been the primary basis for calculating patent-infringement damages and that damages in the form of infringer's profits or lost profits have been exceptional and additional. Records on legislative history of the pre-1998 Article 102 also support this interpretation.[24]

In contrast, the goal of U.S. patent infringement damages is adequate and full compensation for damages resulting from infringement.[25] The patent statute expressly states this goal.[26] The current statute provides two options for calculating infringement damages: (1) lost profits and (2) reasonable royalties.[27] The language of Section 284 indicates that U.S. legislators are more concerned about insufficient compensation for patentees than about harsh results for innocent infringers. No provision exists to enable courts to reduce damages resulting from innocent infringement. Instead, the section expressly prevents courts from awarding damages less than a reasonable royalty. Accordingly, the language of the section is interpreted by courts as being expansive rather than limiting.[28]

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[19] Pre-1998 Patent Law, Art. 102, Para. 1.
[20] Pre-1998 Patent Law, Art, 102, Para. 2.
[21] Civil Code, Art. 709.
[22] Pre-1998 Patent Law, Art. 102. For relation between Pre-1998 Patent Law, Art. 102 and Civil Code 709, *see* NAKAYAMA, Patent Law Annotated 861 (2nd ed. 1989).
[23] Pre-1998 Patent Law, Art. 102, Para. 3.
[24] TAMURA, Intellectual Property and Compensation of Damages 56 (1993).
[25] *General Motors Corp. v. Devex Corp.,* 461 U.S. 648, 654; 76 L.Ed. 2d 211, 103 S. Ct. 2058 (1983).
[26] 35 U.S.C. Sec. 284, Para. 1.
[27] 35 U.S.C. Sec. 284, Para. 1.
[28] *Rite-Hite Corp. v. Kelley Co. Inc.,* 56 F.3d 1538, 1544 (1995).

Unlike Japanese patent law, no provision allows U.S. courts to reduce the amount assessed to compensate damages even if damages are awarded in the form of lost profits beyond a reasonable royalty.[29] The section only allows courts to increase compensatory damages up to three times for victims of willful infringement.[30] Further, under Section 285, in exceptional cases courts may also grant attorney fees, which sometimes results in an amount more than the damage award.[31]

4. Case Law: Pre-1998 Japanese Practice and U.S. Practice

4.1 Lost Profits

In interpreting the language of the pre-1998 section 102 to reflect the underlying policies, Japanese courts have awarded damages in the form of a reasonable royalty in more than 50% of all cases and have awarded damages in the form of lost profits in less than 10% of all cases.[32] The first reason for the small chance of obtaining an award of lost profits was that courts did not even bother to examine the claim of damages in the form of lost profits if patentees did not exploit their inventions by themselves.[33] Since a significant proportion of patents have never been exploited, these patentees were automatically disqualified for claims of lost profits in Japanese courts.

U.S. courts also interpret Section 284 to reflect the underlying policies. First, U.S. courts, particularly the United States Court of Appeals for the Federal Circuit (Federal Circuit), indicate their preference to award actual damages in the form of lost profits to accommodate the goal of full compensation expressed in the language of Section 284.[34] Thus, courts regard actual damages such as lost profits as the primary option for compensation and award a reasonable royalty only if the patentee is unable to prove actual damages.[35] Courts also interpret the legislative intent as giving only the bottom line but no ceiling.[36] U.S. courts make every effort to award damages in the form of lost profits and are reluctant to accept a defendant's argument denying causation, which would lead to an award of reasonable royalty.

Accordingly, it is not difficult to persuade U.S. courts to grant an award of lost profits. Unlike Japanese courts' pre-1988 revision practice, U.S. courts do not automatically reject claims of damages in the form of lost profits when a patentee does

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[29] Pre-1998 Patent Law, Art. 102, Para. 3.

[30] 35 U.S.C. Sec. 284, Para. 2.

[31] 35 U.S.C. Sec. 285.

[32] INSTITUTE OF INTELLECTUAL PROPERTY (IIP), Study of Appropriate Civil Remedies for Compensating Intellectual Property Damages 33 (1996).

[33] MASUI/TAMURA, Guidebook of Patent Court Decisions 277 (1997).

[34] For a general discussion of Federal Circuit case law on patent infringement damages, see JANICKE, Contemporary Issues in Patent Damages, 42 Am. U. L. Rev. 691 (1993); PINCUS, The Computation of Damages in Patent Infringement Actions, 5 Harv. J. Law & Tech. 95 (1991).

[35] *SmithKline Diagnostics, Inc. v. Helena Laboratories Corp.,* 926 F.2d 1161, 1164 (Fed. Cir. 1991).

[36] *Rite-Hite*, at 1544.

not exploit his or her invention.[37] Instead, the Federal Circuit emphasizes the danger of insufficient compensation and a retroactive compulsory license that may result from the practice of requiring a patentee's exploitation of the patented invention, a practice would encourage infringement.[38] Therefore, the court expressly rejects the Japanese courts' practice of checking whether the patentee's product embodies the infringing claim because the practice makes the litigation more cumbersome and complex.[39] As a result, U.S. patentees are given a fair chance to prove lost profits even if they themselves have not made or sold any products embodying the infringing patent.

The second reason for the difficulty of claiming lost profits in Japanese courts was the lack of case law on positive tests or factors to show causation between the act of infringement and lost profits. Japanese patentees often argued that their lost profits were the amount of net profits of their own products multiplied by the number of infringing products sold by infringers. Japanese courts found that this alone was insufficient to show causation and refused to grant any part of lost profits.[40] They developed significant case law on multiple factors to negate causation.[41] Japanese courts' positive test to affirm causation was limited to exceptional cases where only two competitors existed in a unique market[42] or where the infringing product was exactly the same as patentee's product.[43] As a result, Japanese patentees were completely prevented from recovery of lost profits except for exceptional cases where courts have recognized a full or substantial part of amount claimed by the patentee (all or nothing rule).[44]

This all or nothing rule significantly discouraged Japanese patentees from claiming lost profits. Therefore, if Japanese patentees exploited their patented inventions, they preferred to claim a recovery of defendant's profits.[45] The patent statute provided a presumption that the infringer's profits are equal to the patentee's lost profits.[46] This practice saved Japanese courts the time of examining complicated factual issues in finding causation. At the same time, this practice imposed the burden on Japanese patentees to show the infringer's net profits, instead of their own profits as would be done if lost profits were claimed. Because of the difficulty of obtaining evidence to show the opposing party's net profits, patentees often failed to establish such profits.[47]

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[37] *Rite-Hite*, at 1546.
[38] *King Instruments Corp. v. Luciano Perego,* 65 F.3d 941 (Fed. Cir. 1995).
[39] *King, id.* at 952.
[40] Judgment of Tokyo District Court, Dec. 25, 1963, HANREI TAIMUZU No. 156, 218 (1964).
[41] MASUI/TAMURA, *supra* note 33, at 278.
[42] Judgment of Tokyo District Court, Sept. 21, 1963, HANREI TAIMUZU No. 154, 138 (1964).
[43] Judgment of Tokyo District Court, Sept. 14, 1963, HANREI TAIMUZU No. 152, 163 (1964).
[44] IIP, *supra* note 32, at 34.
[45] IIP, *supra* note 32, at 29.
[46] Pre-1998 Japanese Patent Law, Art. 102, Para. 1.
[47] Judgment of Tokyo District Court, March 14, 1988, HANREI TOKKYO JITSUYOU SHIN-AN 400-114 (1988).

Moreover, patentees were not allowed to recover infringer's profits with respect to the entire product when the patent covered only part of the entire product and were required to show the contribution rate or apportionment, kiyo-ritsu, of the patented part versus the non-patented part.[48] Patentees had to show apportionment between the patented part and the non-patented part and were entitled only to recovery of the patented part of the defendant's profits. If a patentee was unable to establish the contribution rate, the court could deny the entire claim of defendant's lost profits.[49]

Even if patentees were entitled to defendant's profits for the entire product, such profits were often less than the patentee's own lost profits because infringers were often the second comer in the market and do not enjoy the benefit of monopoly price. Because of these difficulties, full recovery of claimed defendant's profits was awarded in only 16.4% of cases seeking recovery of defendant's profits.[50]

In contrast, the Federal Circuit has developed case law with more positive tests for causation than negative tests. Seldom do U.S. courts completely reject a claim of lost profits. Significant differences between the patentee's product and the infringing product (which had completely eliminated a claim of lost profits in Japanese courts) do not completely eliminate a claim of lost profits in U.S. courts but only reflect the number of sales the patentee could have sold but for infringement.[51] Evidence that the infringer's product is much less expensive than the patentee's product is also not sufficient to negate causation.[52]

Where only the patentee and infringer are competitors in the market, U.S. courts find causation without further evidence, an exceptional circumstance in which even Japanese courts would find causation.[53] Other circumstances where courts find causation include when the patent owner lost the sales to the infringer under a bidding system;[54] when the entry and departure of the infringer's product in the market forces a change in price of the patentee's products;[55] and when the infringer was either a former customer or supplier to the customer.[56]

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[48] MASUI/TAMURA, *supra* note 33, at 294.

[49] Judgment of Osaka District Court, June 19, 1968, HANREI TAIMUZU No. 223, 200 (1968).

[50] IIP, *supra* note 32 at 36.

[51] *King,* at 953.

[52] *Dobson v. Dornan,* 118 U.S. 10, 6 S. Ct. 946, 30 L.Ed 63 (1886); *SmithKline Diagnostics, Inc. v. Helena Laboratories Corp.,* 12 USPQ 2d, 1375, (E.D. Tex. 1989), affirmed in 926 F.2d 1161 (Fed. Cir. 1991). However, if demand for the patented product is elastic, courts may negate causation. See, *BIC Leisure Prods. v. Windsurfing Int'l Inc.,* 1 F. 3d 1214 (Fed. Cir. 1993).

[53] *Yale Lock Co. v. Sargent*, 117 U.S. 536, 6 S.Ct. 934, 29 L.Ed. 954 (1886); *Lam, Inc. v. Johns-Manville Corp.,* 718 F.2d 1056 (Fed. Cir. 1983); *Marsh-McBirney, Inc. v. Montedoro-Whitney Corp.* 882 F.2d 498 (Fed. Cir. 1989).

[54] *Wallace & Tiernan Co. v. Syracuse*, 45 F.2d 693, (2d Cir. 1930); *Manville Sales Corp. v. Paramount Systems Inc.* 14 USPQ 2d 1219 (E.D. Pa. 1989), further opinion 14 USPQ2d 1299 (E.D. Pa 1989), affirmed in 917 F.2d 544 (Fed. Cir. 1990).

[55] *Pressed Prism Glass Co. v. Continuous Glass Prism Co.*, 181 F. 151(C.C.W.D. Pa. 1910); *Hall v. Stern*, 20 F. 788 (C.C.D.N.Y. 1884).

[56] *Central Soya Co. v. Geo. A. Hormel & Co.*, 723 F.2d 1573 (1983).

Even in cases where such exceptional circumstances do not exist, U.S. courts have developed a positive test to infer causation. The four-factor test is called the Panduit Test, after the first case to adopt the test.[57] These four factors are (1) a presence of demand for patented products in the market; (2) an absence of acceptable non-infringing alternatives; (3) patentee's own capacity to have met that demand; and (4) the amount of profits the patentee would have made.

A patentee can demonstrate the demand for the patented products by showing that the infringers sold infringing products.[58] Showing the capability is not difficult because courts require only potential capability, which can be demonstrated by the possibility of subcontracting the increased portion of manufacture and of hiring new sales persons to sell that portion.[59] This was in stark contrast with Japanese courts' pre-1998 practice of requiring patentees to show the capability to manufacture and sell additional products with a high degree of certainty.[60]

Of the first three factors, showing the second factor, the absence of alternatives, is most difficult. However, in fact, even this showing is relatively easy because the Federal Circuit has developed a strict test for showing acceptable alternatives that shifts the burden of proof from the patentee to the infringer. This test requires a finding that the alleged alternative has all of the features and functions of the patented products, often leading to an absence of acceptable alternatives because the alternatives are usually less effective and inadequate.[61] Even if an infringer successfully shows an acceptable alternative, courts may exercise their own discretion and award lost profits on the basis of market share.[62]

Once the first three factors are demonstrated, patentees show the fourth factor of profits by simply estimating the expected profits that the patentee would have made from the infringing sales.[63] This amount is calculated simply by multiplying patentee's net profits per unit of product by the number of units sold by infringers.[64]

Finally, the entire-market-value rule relieves patentees of the significant burden of establishing apportionment between the patented part and the non-patented part when a patent covers only a part of the product.[65] The difficulty related to the apportionment is well understood by the U.S. patent community from experiences dealing with the eliminated measurement of defendant's profits.[66] With the adoption of the entire-market-value rule, patentees now establish that the value of the entire

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[57] *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.* 575 F.2d 1152 (6th Cir. 1978).
[58] *Gyromat Corp. v. Champion Spark Plug Company*, 735 F.2d 549 (Fed. Cir. 1984).
[59] *Gyromat Corp., id.* .
[60] Judgment of Osaka District Court, March 25, 1991, TOKKYO TO KIGYOU No. 270, 54 (1991).
[61] *Radio Steel & Mfg. Co. v. MTD Products, Inc.* 788 F.2d 1554 (Fed. Cir. 1986). The Federal Circuit may apply a less strict test, see *SmithKline Diagnostics.* For a general discussion of the definition of non-infringing alternatives, see 1978, Patents, § 20.03[1][b][v] [E] (1999).
[62] *State Industries, Inc. v. Mor-Flo Industries, Inc,* 883 F.2d 1573 (Fed. Cir. 1989), cert. denied, 493 U.S. 1022 (1990).
[63] *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418 (1988).
[64] PINCUS, *supra* note 34, at 113.
[65] CHISUM, *supra* note 7, § 20.03[1] [c].
[66] CHISUM, *supra* note 7, § 20.02[3].

product depends on the patented part, instead of showing the perplexing apportionment, and can recover lost profits for the entire product.[67]

In addition to the case law which relieves patentees of the burden of establishing causation, U.S. patentees are advantaged over Japanese patentees in collecting evidence to calculate lost profits through the discovery process and proceedings for protecting proprietary information.[68]

4.2 Reasonable Royalty

Japanese patent law defined damages in the form of a reasonable royalty as the amount that a patentee ordinarily receives as compensation for allowing exploitation of the patented invention.[69] Because some damages were awarded if the patentee claimed a reasonable royalty, the reasonable royalty appeared to function as a minimum compensation for infringement (though the statute did not expressly provide so). However, unlike U.S. case law, the reasonable royalty did not function as a minimum compensation to guarantee at least reasonable royalty for infringing products for which the patentee failed to show causation for lost profits.

Damages awarded by Japanese courts were very low.[70] One reason for the low royalty award was the difficulty of establishing the number of infringing products sold by the defendant. Because of lack of procedure in collecting evidence, courts often allowed recovery of royalty only with respect to number of sales that infringers admit.[71]

Additionally, Japanese courts attempted to limit the royalty rates to a minimum. First, if there was a prior actual license for acts comparable to those engaged in by the infringer without authority, courts did not award a reasonable royalty more than the royalty rate agreed upon in that legally negotiated license.[72] In other words, the royalty rate for the prior license functioned as the maximum recovery.

Although many courts adopted the prior royalty rates as a reasonable royalty,[73] a significant number of courts reduced the awarded rate to the lower of two published royalty rates if either was lower than the prior royalty: (1) the rate published by the Japanese Patent Office for licensing government owned patents; and (2) the industry-standard royalty rate published by a quasi-governmental research institution.[74]

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[67] The leading case for the entire-market-value rule is *Goulds Manufacturing Co. v. Cowing,* 105 U.S. 253 (1881).

[68] TAKENAKA, *supra* note 2 at 326.

[69] Pre-1998 Japanese Patent Law (pre-1998), Art. 102, Para. 3.

[70] In only small proportion of cases (31.1%) the requested amount was fully awarded. The amount of royalty actually awarded on average is much less (63%) than the amount requested by patentees. IIP, *supra* note 32, at 39.

[71] IIP, *supra* note 32, at 40.

[72] IIP, *supra* note 32, at 41. Courts consistently rejected patentees' arguments to adopt a rate higher than the legally negotiated prior royalty rate.

[73] IIP, *supra* note 32, at 41. Courts adopted prior royalty rates in 29 cases out of 90 cases (32.2%).

[74] IIP, *supra* note 32, at 40.

In contrast, reasonable royalties awarded by U.S. courts are much more than the reasonable royalties awarded by Japanese courts. The patent statute expressly guarantees that the reasonable royalty is a minimum compensation.[75] U.S. courts interpret the statute to mean that patentees are guaranteed to recover a reasonable royalty with respect to infringing products for which they could not establish causation for lost profits.[76]

For U.S. courts, an existing royalty rate agreed upon between the patentee and its licensees is important evidence for deciding a reasonable royalty rate.[77] U.S. courts cannot award less than an 'established' royalty.[78] An established royalty does not function as a maximum compensation because U.S. courts can award a reasonable royalty which is higher than the established royalty.[79] This award tends to be higher than an established royalty when the established royalty is depressed because the patent has not yet gained public recognition or acceptance or because of widespread infringing activity.[80] They may deny the presence of an 'established' royalty as being artificially low and adopt a higher royalty than prior licenses royalties.[81]

When no established rate exists, U.S. courts, like Japanese courts, give considerable weight to the royalty rate of a prior license even if the rate is not qualified as being 'established'.[82] However, U.S. courts' practice highly contrasts with that of Japanese courts because U.S. courts give less weight to an industry standard of royalty for a license of comparable technology.[83] Instead, they rely heavily on particular license policies and arrangements selected by the patentee for the infringing patent and related technology fields. In particular, if the patentee has chosen not to license the patent in order to benefit from exclusivity, courts increase the 'reasonable royalty'; otherwise, it would result in a compulsory license to the infringer.[84] U.S. case law frequently adopts a definition of reasonable royalty as that which would have resulted from a hypothetical negotiation between a willing patent owner and a willing potential user.[85] The royalties granted by U.S. courts, however, are much more than reasonable, which often leaves no profits for infringers, and can even force them into bankruptcy.[86]

This is in stark contrast to Japanese courts' pre-1998 practice of adopting the JPO's published rate or the industry standard rate for patent damages in cases where the patentee never licensed the patent. As a result, the average of damages in the

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[75] 35 U.S.C. § 284.
[76] *Rite-Hite Corp.,* at 1554.
[77] For a general discussion of the established royalty, *see* CHISUM, *supra* note 7, § 20.03[2].
[78] *United States National Bank of Portland, Oregon v. Fabri-Valve Co. of America,* 235 F.2d 565, 110 USPQ 77 (9th Cir. 1956), CHISUM, *supra* note 7, § 20.03[2] [d].
[79] CHISUM, *supra* note 7, § 20.03[2] [c].
[80] CHISUM, *supra* note 7, § 20.03[2] [c].
[81] *Nickson Industries, Inc. v. Rol Manufacturing Co. Ltd.,* 847 F.2d 795(Fed. Cir. 1988).
[82] CHISUM, *supra* note 7, § 20.03[3][b] [i].
[83] *Bio-Rad Laboratory Inc. v. Nicolet Instrument Corp*., 739 F.2d 604 (Fed. Cir. 1984).
[84] *King*, at 950.
[85] CHISUM, *supra* note 7, § 20.03[3][a].
[86] *Radio Steel*; *Mahurkar v. C.R. Bard, Inc.,* 79 F.3d 1572 (Fed. Cir. 1996).

form of reasonable royalty awarded by U.S. courts is significantly higher than that of Japanese courts.

Absence of prior license leads to vast differences in U.S. and Japanese damages. If the patentee had not licensed any comparable technology and had no information for calculating a royalty rate, Japanese courts tended to rely on the JPO's published rate. Accordingly, cases adopting JPO's royalty rates occupied a significant portion of all cases awarding damages in the form of a reasonable royalty.[87] Because the JPO's royalty rates were kept to a minimum in order to encourage transfer of technology from government to industry, the average rate of reasonable royalty awarded by Japanese courts was very low (4.2%), even lower than the average rate under the industry-standard of reasonable royalty (4.6%).[88]

In contrast, U.S. courts give less weight to the industry standard[89] and more weight to the patent owner's licensing policy.[90] Absence of a prior license allows U.S. courts to increase royalty rates because it may be viewed by U.S. courts as evidence that the patentee adopted a policy not to license to others and instead to use the right exclusively. Award of a reasonable royalty determined by the market would result in a compulsory license on patentees who have never wanted to license. Thus, to avoid such a result, courts tend to award more than a rate that would have been reached by a willing licensee and licensor.[91]

5. Japan's Infringement Damages after 1998 Revision

5.1 1998 Revision and Change of Policy

To recover from its deep recession, the Japanese Government set a national goal to become 'a nation based on intellectual property' and began an overhaul of its intellectual property system by adopting a 'pro-patent' policy.[92] The Japanese government showed a serious concern over lack of incentive for R&D due to under-compensation resulting from Japanese courts' practice under the pre-1998 patent law. It asked JPO's Industrial Property Right Committee to review the practice and invited comments on whether any aspects of the patent statute needed to be revised. The JPO's Committee extensively reviewed U.S. case law on calculation of damages in the form of lost profits and reasonable royalties and proposed a revision amending Article 102. The proposed revision included (1) introduction of a presumption of causation by codifying the factors under the *Panduit* test; (2) a definition of a rea-

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87 IIP, *supra* note 32, at 41. 21.1% of all cases awarding a reasonable royalty adopted JPO's published rates.

88 IIP, *supra* note 32, at 41.

89 CHISUM *supra* note 7, § 20.03[3][b][ii].

90 CHISUM, *supra* note 7, § 20.03[3][b][iii].

91 *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. Mich. 1978); *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

92 TAKENAKA/NAKAYAMA, Will Intellectual Property Policy Save Japan from Recession? Japan's Basic Intellectual Property Law and Its Implementation Through the Strategic Program, 35 IIC 877 (2004).

sonable royalty which was higher than a legally negotiated prior royalty; (3) a removal of courts' discretion for reducing the amount exceeding a reasonable royalty; and (4) introduction of punitive damages.[93] Responding to the Committee's proposal, JPO introduced a bill to revise patent law and other industrial property laws, which became effective on January 1,1999.[94]

The most important aspect of the revision is an introduction of a presumption to facilitate patentees in establishing causation for a claim of damages in the form of lost profits. The new Article 102 Paragraph 1 provides that the patentee is entitled to an amount of the profits per unit of goods that would have been sold but for the infringement multiplied by the number of said assigned goods as long as the amount does not exceed the patentee's ability to exploit the patented invention. For the first time, the option of lost profits was expressly provided in the patent statute. The new provision for lost profits was inserted in Paragraph 1, and the existing provisions for defendant's profits and reasonable royalties were moved to Paragraphs 2 and 3 respectively. Under Japanese rules of statutory construction, a general rule is normally followed by exceptions to the general rule.[95] Accordingly, the insertion of the new provision in the first paragraph may be interpreted as announcing a change of policy in measurement of damages from infringement of Japanese patents.

The JPO's revision also included a change in the provision for calculating damages in the form of a reasonable royalty.[96] The new provision removed the term 'ordinarily' from the definition of the amount received as damages in the form of a royalty. Elimination of this term was designed to allow Japanese courts to take into account the circumstances of a particular case and grant a royalty higher than that available under the published industry standard rates or JPO license rates for government-owned patents.[97]

Unfortunately, the 1998 revision did not remove or amend the provision for giving Japanese courts discretion to reduce the amount exceeding a reasonable royalty.[98] Retaining the provision casts doubt on whether guaranteeing adequate compensation and emphasis on patentee's interests are the priority for the goal of awarding damages under the Japanese patent system after the 1998 revision. The revision did not implement the Committee's proposal to introduce punitive damages, which is in conflict with public policy under the Supreme Court precedent.[99]

5.2 Case Law: Lost Profits

The legislative history of the 1998 revision supports that the new Article 102, Paragraph 1 codified the third and fourth factors of the Panduit test in presuming causa-

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[93] IPR Committee, *supra* note 1, at 58.
[94] A Law to Revise Patent Law and Other Intellectual Property Laws, Law No. 51 of 1998.
[95] NOBUTOSHI TAJIMA, Metrologies for Interpreting Statute, 109 (1980).
[96] Japanese Patent Law, Art. 102, Para. 3.
[97] IRINO, A Law for Revising Part of Patent Law and Other Industrial Property Laws, 1140 JURISTO 71 (1998).
[98] Japanese Patent Law, Art. 102, Para. 4.
[99] Judgment of Supreme Court of Japan, July 11, 1997, 51 Minshu No. 6, 2573.

tion between the patentee's lost sales and defendant's infringement. Although the U.S. Panduit test's presumption is based on a basic economic theory, JPO's Committee did not examine the underlying economic theory when they proposed to adopt a presumption of causation. The Committee did not engage in in-depth analysis of the impact of the new provision on the pre-1998 practice and simply imported U.S. case law doctrine. As a result, the revision introduced much ambiguity in interpreting the newly introduced provision with respect to important issues that prevented Japanese courts from awarding lost profits under pre-1998 patent law.

The first ambiguity of the new paragraph exists with respect to its nature. It is unclear from the language of statute whether the defined amount is merely based on a presumption to shift the burden of proof from the patentee to the infringer or constructive which prevents infringers from rebutting the amount by introducing evidence for lack of causation. The legislative history supports that the defined amount is based on a presumption and thus the infringer can introduce evidence to rebut the presumption. Accordingly the presumption is followed by the sentence to give courts power to deduct the presumed amount: where circumstances indicate that said patentee or exclusive licensee would have been unable to sell all or some of said assigned products.[100]

The second sentence of the new paragraph can be read to allow courts to completely eliminate a claim of lost profits. However, courts should take account of the legislative intent of the 1998 revision and make the best efforts to determine the number of products the patentee could have sold, rather than rejecting a claim of lost profits completely by taking advantage of the fact finding power introduced by the 1999 revision.[101]

For those courts which view the new paragraph as introducing a presumption, they converted the negative factors to eliminate causation under the pre-1998 practice into deducible factors to establish circumstances where patentees could not have sold but for infringement. Such circumstances include presence of substitutes, infringer's own sales efforts and distribution mechanism, infringer's own reputation, and differences in structure and function between the infringer's product and the patentee's product.[102] Some of those courts found that the patentee could not have sold a substantial portion of products sold by the infringer and significantly deducted the presumed amount with respect to the unsold products.

Other courts view that the amount in the new paragraph is constructive. In their view, the new paragraph is based on a legal fiction in which only two competitors, the patentee and infringer, exist because the exclusive right of a patent creates a special market for the patented product.[103] This view ignores the reality of the market and departs from the economic theory underlying the U.S. Panduit test. Thus, these

[100] Japanese Patent Law, Art. 102, Para. 1.
[101] Japanese Patent Law, Art. 105-3 (Revision, Law No. 41 of 1999).
[102] Judgment of IP High Court, Sept. 25, 2006; Judgment of April 19, 2007.
[103] Judgment of Tokyo District Court, March 19, 2002.

courts do not allow infringers to show the presence of substitutes as a circumstance to deduct the presumed amount.

Another ambiguity is whether an exploitation of the patented invention is required for a claim of lost profits. The new paragraph does not expressly require the exploitation for the patentee to take account of the presumption. However, those courts which view the amount of the new paragraph as constructive require 'the products the patentee could have assigned but for infringement' to be limited to embodiments of the patented invention.[104] The product claimed for lost profits must be an embodiment of the patented invention because of a legal fiction for a special two competitor market for the patented product.

The majority of courts, however, do not require the patentee to exploit the patented invention. They interpret 'the could-have-sold product' to include a product which is not an embodiment of the patented invention.[105] Like U.S. case law, these courts allow a recovery of lost profits because the sales of the product competing with infringing products are affected by the infringement and could have sold but for the infringement. This view is supported by the legislative history and is widely supported by legal scholars.[106]

Although the new paragraph does not mention the apportionment between patented and non-patented portions, some courts applied a contribution rate to the presumed amount.[107] Other courts did not apply a contribution rate even though the patent did not cover the entire product.[108] Instead, they examined the significance of the patented portion with respect to consumer demand. They found that the patentee could have sold only small portion of products the infringer had sold and thus deducted the presumed amount if the patented portion had little influence over a consumer's incentive to purchase infringing products. This view is more in line with the language of the new paragraph. Unlike pre-1998 practice, courts find lost profits even if the patentee's product is not identical to the infringer's product. The difference in structure and function including both patented and non-patented portion should be evaluated if the difference should have resulted in the number of products that the patentee could have sold but for infringement.[109] Some commentators encourage applying the entire-market value rule where the patented portion creates demand for the entire product.[110]

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[104] Judgment of Tokyo District Court, March 19, 2002.
[105] Judgment of Tokyo High Court, June 15, 1999.
[106] SEMOTO, Patent Infringement and Establishing Amount of Damages in Japanese, 4 (1999); TAKABAYASHI, Standard Patent Law in Japanese, 248 (2005).
[107] Judgment of Tokyo High Court, June 15, 1999; Judgment of Tokyo District Court, March 19, 2002; Judgment of Tokyo District Court, Dec. 26, 2003.
[108] Judgment of IP High Court, September 25, 2006.
[109] SHIBUYA, Lectures in Intellectual Property Laws I, in Japanese, 297 (2006).
[110] MIMURA, Damages (1) – Patent Law Article 102 Paragraph 1, in Japanese, in: Procedural Laws of Intellectual Property 303 (2001); TAMURA, Revision of Patent Law and Other Intellectual Property Laws Regarding Infringement Damages, in Japanese, 49 Patent Management (No. 3), 329.

Regarding the patentee's capability which limits the recovery of presumed amount, actual capability during the period of infringement is not necessary. Courts find the requirement met if the patentee had potential capability during the infringing period.[111] This interpretation is supported by the legislative history and legal scholars.[112]

5.3 Case Law: Reasonable Royalty

Reflecting the legislative intent to remove the term 'ordinarily' from Article 102, Paragraph 3, courts began to determine a reasonable royalty in adopting case-by case analysis by taking account of a variety of factors similar to factors that U.S. courts take account for calculating a reasonable royalty.[113] Such factors include a legally negotiated and agreed upon royalty, an average royalty in the industry of the invention, the significance of the patented invention, the act of infringement, profits made by the infringer from the infringement, the relationship between the patentee and infringer in the relevant market and the patentee's market strategies. They no longer solely rely on an industry average royalty.[114] As a result, Japanese courts are more willing to set a reasonable royalty higher than a prior royalty or the industry average royalty by taking into account factors unique to each case.

So far, courts have given little weight to the relationship between the patentee and infringer or the patentee's business strategies. However, these factors are important in setting a reasonable royalty. As U.S. case law indicates, if the patentee and infringer compete head to head in the relevant market and the patentee adopts a strategy to exclusively make and sell patented products, rather than giving a license, it is very unlikely to give a license to the infringer at all. The patentee might have given a license only if the infringer accepts a royalty which is much higher than the industry standard.

Even if the patentee has given a license, a reasonable royalty should be different from a royalty agreed by the legally negotiated licensor and licensee. In a real license negotiation, licensees often must take a risk for commercialization and thus an agreed upon royalty can be discounted reflecting such a risk. Infringers avoided the risk if the patentee and licensee commercialized the patented invention and established a market for an embodiment of the invention before infringement.

5.4 Case Law: Guarantee of Minimum Compensation

Although the legislative history made it clear that the goal of the 1998 revision was to guarantee patentees adequate compensation for damages resulting from infringement, any term to indicate the goal was not introduced. Although Article 102 Paragraph 4 retained courts' discretion to reduce the amount exceeding a reasonable royalty, legal scholars read this provision to clarify the function of a reasonable royalty

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[111] Judgment of Tokyo District, July 17, 2001; Judgment of Tokyo District Court, March 19, 2002.
[112] SHIBUYA, *supra* 109, at 301; MIMURA, *supra* note 110, at 293.
[113] Judgment of Osaka District Court, Oct. 29, 2002.
[114] Judgment of Nagoya District Court, February 10, 2003.

as a minimum compensation.[115] Because they view a claim of reasonable royalty based on unjust enrichment, the patentee is entitled to a reasonable royalty regardless of whether he or she is negligent or innocent.[116] Infringers are unjustly enriched by circumventing a payment of royalties that they owe to the patentee for the amount equal to a reasonable royalty. Some courts adopted this view utilizing a split calculation for the award, using lost profits for some infringing sales and reasonable royalties for other infringing sale where a claim of lost profits was denied.[117]

However, other courts deny a claim of reasonable royalties with respect to infringing products that a claim of lost profits was denied.[118] These courts view both lost profits and reasonable royalty provisions as defining the boundary of liability for recoverable damages in different calculation methods.[119] Accordingly once the patentee failed to establish causation under the lost profits theory, he or she cannot do so under the reasonable royalty theory. This view is inconsistent with the language of Paragraph 4, which presumes separate boundaries of damage liability under the reasonable royalty and lost profits theories. This view also conflicts with the emphasis on the patentee's right for compensation in the legislative history for revising Article 102.

6. Impact of 1998 Revision

In theory, introduction of the Panduit presumption in Article 102 moved Japanese patent infringement damages substantially in line with U.S. damages. The revision significantly reduced the patentee's burden of establishing causation, leading to a significant increase in the number of cases claiming lost profits.[120] Courts replaced the all or nothing rule with the new rule in which at least some portion of lost profits claim was awarded. According to 2004 statistics, the four largest damage awards were based on lost profits under the new paragraph 1, which tends to support the significant impact of the 1998 revision.[121] Particularly, because early decisions did not allow deduction of the presumed amount by taking a view that the amount under the new paragraph was constructive, they suggested a risk that the revision introduced a scheme to overcompensate damages.[122]

In practice, the impact of the 1998 revision was much smaller than expected. More recent statistics indicate a decrease in the average amount of damages awarded in Japanese courts.[123] The proportion of the amount awarded contrasted to

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[115] TAKABAYASHI, *supra* 106, at 254.
[116] SHIBUYA, *supra* 109, at 310.
[117] Judgment of Tokyo District Court, June 15, 1999.
[118] Judgment of IP High Court, Sept. 25, 2006; Judgment of Osaka District Court, April 19, 2007.
[119] KOIKE, Direction of Practice in Interpreting Patent Law Article 102, in Japanese, in: TAKABAYASHI/SHIBUYA/TAKENAKA, 2007 IP Annual Report 281 (2007).
[120] JAPAN ASSOCIATION OF INTELLECTUAL PROPERTY, Study of Patent Infringement Damages, 54 Intellectual Property Management 1287 (2004).
[121] JAPAN ASSOCIATION OF INTELLECTUAL PROPERTY, *id.* .
[122] TAKENAKA, *supra* note 2 at 362.
[123] IIP, Report on Current Situations in Industrial Property Rights Disputes, 90-93 (2006).

the amount claimed by the patentees has declined in more recent cases.[124] According to 1992 statistics cited by JPO for justification of the 1998 revision, the average damage award doubled from that of the statistics before the revision but is still 1/100 of the average damage award in U.S. courts.

Obviously, importing U.S. case law doctrine did not push up Japanese damage awards to the level of damage awards available in U.S. courts. A possible source of this marginal impact is the unclear impact of the revision on patent policy. Although Japanese judges were affected by the patent policy with emphasis on patentee's right of compensation during and immediately after the 1998 revision, they gradually returned to the pre-1998 practice because such a policy was unclear from the language of Article 102.

Another source is that the goal of the 1998 revision poorly served the needs of Japanese industry. Pre-revision statistics did not clearly show the necessity of increasing damages.[125] Post-revision statistics indicate that Japanese industry overall views current damages just as adequate as pre-1998 damages.[126] Japanese judiciary is well known for its consistency and uniformity through the development of sense of social justice (so called 'legal mind') in judges.[127] The impact of the revision on Japanese judges' sense of social justice did not last because a significant increase in damages was not necessary for maintaining the appropriate balance in intellectual property for Japanese society. Thus, judges converted pre-1998 negative factors to eliminate causation into deductable factors to establish circumstances where patentees could not have sold but for infringement.

A third source of this marginal impact is the limited use of the new presumption which requires a disclosure of per-unit-net profit.[128] Many patentees preferred to keep such profit secret and thus refrained from taking advantage of the new presumption. Because the revision did not make the function of reasonable royalty a minimum compensation, any claim of compensation may be denied with respect to the number of infringing products that a claim of lost profits is denied under Paragraph 1. Patentees may prefer to claim reasonable royalties and secure compensation for all infringing products sold by the infringer.

7. Conclusion

Japan's experience shows a challenge in changing a well established legal system by importing a foreign system. Particularly, restructuring patent infringement damages presents a big challenge because common law and civil law traditions strongly influence the theory and policy of civil remedies. Adopting similar language through an international agreement does not necessary harmonize the sense of jus-

[124] IIP, *id.,* at 91. 70% of the claimed amount was awarded in 2000 but only 20% was awarded in 2003.
[125] IIP, *supra* note 32, at 24
[126] IIP, *supra* note 123, at 175 and 179.
[127] HALEY, The Sprit of Japanese Law (1998)
[128] IIP, *supra* note 123, at 173. Patentees requested lost profits under Art. 102, Para. 1 only in 10% of all cases in which damages are awarded.

tice held in judges of different jurisdictions. Thus, European countries should expect a similar challenge in overcoming differences in civil remedies available in common law countries such as the U.K. and civil law countries such as Germany.

Although the huge gap between damage awards available in Japanese and U.S. courts remains, one may argue that the 1998 revision was successful. The goal of the revision is not harmonization but the provision of adequate compensation for patent infringement damages. The revision attained this goal because the relatively marginal increase in damages may reflect little need to change the balance between competing interests of patentees and the public in Japanese industry. In any event, the Japanese economy has recently shown a strong recovery from its recession. Accordingly, the Japanese government's mission has been successfully completed, although there is no evidence that the recovery was promoted by adoption of the national strategies and pro-patent policy.

The Inescapable Trap – A Case for Reconsideration?

Rudolf Teschemacher and Jochen Pagenberg

1. The Role of the Enlarged Board of Appeal

It is the task of the Enlarged Board of Appeal of the European Patent Office (EPO) to issue opinions and decisions on points of law which thereafter constitute the highest level of judicial authority within the EPO[1]. The European Patent Convention itself does not provide for a mechanism safeguarding that decisions and opinions of the Enlarged Board of Appeal are uniformly applied in all future cases. However, Article 21 of the Rules of Procedure of the Boards of Appeal[2] prescribes *'Should a Board of Appeal consider it necessary to deviate from an interpretation or explanation of the Convention contained in an earlier opinion or decision of the Enlarged Board of Appeal, the question shall be referred to the Enlarged Board of Appeal'*. In other words, the Rules of Procedure achieve a precedent-setting effect by obliging the Boards of Appeal either to follow the Enlarged Board of Appeal in its interpretation of the EPC or to refer the previously decided point for a second time to the Enlarged Board of Appeal.

Whereas it is desirable that the interpretation of the EPC by the Enlarged Board of Appeal is taken into consideration by national instances in applying the EPC, these instances are independent in their interpretation. The Enlarged Board of Appeal has been named a persuasive authority[3]. However, if its considerations do not happen to succeed in convincing a national court faced with a question already decided upon by the Enlarged Board of Appeal, the national court will come to different conclusions. Hence, the harmonizing effect of the rulings of the Enlarged Board of Appeal depends on its persuasive power in the individual case.

2. The Creation of the Inescapable Trap

In case G 1/93, the Enlarged Board of Appeal had to deal with the problem that the question of added subject-matter may be assessed differently in grant proceedings and at the opposition stage. An amendment which was held allowable by the Examining Division may be considered by the Opposition Division to violate Article 123(2) EPC. In its decision, the Enlarged Board of Appeal ruled as follows:[4]

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1 PATERSON, Development of the procedure and jurisdiction of the Enlarged Board of Appeal, in: The Law and Practice of the Enlarged Board of Appeal of the EPO during its First Ten Years 65, 67 (1996).

2 In the version entered into force with the EPC 2000, 2007 OJ EPO 537, Art. 16 of the previous version.

3 *Merrell Dow v. Norton* [1996] RPC 76, at pt. 4 (HL).

4 G 1/93, 1994 OJ EPO 541 – Limiting Feature/ADVANCED SEMICONDUCTOR PRODUCTS, 1st point of the order.

> If a European patent as granted contains subject-matter which extends beyond the content of the application as filed within the meaning of Article 123(2) EPC and which also limits the scope of protection conferred by the patent, such patent cannot be maintained in opposition proceedings unamended, because the ground for opposition under Article 100(c) EPC prejudices the maintenance of the patent. Nor can it be amended by deleting such limiting subject-matter from the claims, because such amendment would extend the protection conferred, which is prohibited by Article 123(3) EPC. Such a patent can, therefore, only be maintained if there is a basis in the application as filed for replacing such subject-matter without violating Article 123 (3) EPC.

In the reasons given[5], this situation is called the *inescapable trap,* referring to a proprietor who had introduced into the application a limiting amendment which was later on regarded as representing technical information not disclosed in the application as filed.

The decision has become the basis for the practice of the EPO in opposition proceedings. For the Opposition Divisions it is enshrined in the Guidelines[6], the Boards of Appeal apply it in consistent practice[7] and no serious attempt has become apparent to bring the question again before the Enlarged Board of Appeal. Requests for a further referral have met with no success since the Boards of Appeal faced with such requests took the position that a referral was not appropriate,[8] considering the outcome in G 1/93[9] and in the disclaimer decisions.[10]

Whereas the matter appears to be settled for proceedings before the EPO, it does not seem that the *inescapable trap* exists in national proceedings.[11] On the contrary, the EPO's approach has raised serious criticism from those responsible for national practice.

3. Reactions from National Courts

Soon after G 1/93 had been handed down, the inescapable trap was discussed at the Eigth Symposium of European Patent Judges in Stockholm, 1996. At the conference, most prominent representatives of national jurisdictions commented on G 1/93. *Sir Hugh Laddie* said that he did not think that a sensible solution lies in the inescapable trap; he hoped a solution exists in allowing limiting amendments, a solution also proposed by *Jan Brinkhof* in his paper[12]. *Rüdiger Rogge* criticized that, although the Enlarged Board of Appeal had accurately analyzed the conflict, it did not offer a solution.[13] In the general discussion, reference was made to English

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5 *Id.*, Reasons no. 13.
6 Guidelines for Examination in the EPO, D-V, 6.2.
7 EPO, Case Law of the Boards of Appeal of the EPO II.C. (5th ed. 2006).
8 *See* recently, T 1180/05 of August 2, 2007, not in OJ EPO.
9 G 1/93, *supra* note 4.
10 G 1/03, 2004 OJ EPO 113 – Disclaimer/PPG and G 2/03, 2004 OJ EPO 448 – Disclaimer/GENETIC SYSTEMS.
11 *See* below, pt. 3.
12 28 IIC 833 (1997).
13 28 IIC 842 (1997).

law, offering the use of a disclaimer as a solution. When the extension of the original disclosure was withdrawn, all that was needed in practice was clarification that the protection was not being extended by a return to the previous situation, thus preventing the trap from closing. The absence of a workable solution in the Enlarged Board's decision was felt to be a shortcoming. National law did not categorically have to follow the European lead on the matter.[14]

Former members of the Enlarged Board of Appeal also expressed their dissatisfaction with the answer given in G 1/93. They emphasized that it was not sufficient to state the conflict between the effects of the prohibition of adding subject-matter before the grant and of the prohibition of extending the scope of protection after the grant. Rather, it was the most prominent task of the judiciary to solve this conflict.[15] *Schulte* has put the criticism in a nutshell by stating that the conclusions in G 1/93 lack a balanced conciliation of the legitimate interests of the proprietor and the public. The proprietor loses his valuable right because of a deficiency for which the EPO also bears responsibility, since it is obliged not to grant patents on applications and inventions failing to meet the requirements of the EPC.[16]

Indeed, no valid argument has been put forward as to a public interest requiring that a patentee falls into an inescapable trap. In making his disclosure in the application, the applicant has made his invention available to the public. He deserves fair proceedings to have examined the respective requirements for obtaining and defending a patent. Refusal of the application or revocation of the patent for formal reasons violates the property rights of the applicant or proprietor if the respective formal requirements do not serve a legitimate purpose. Whereas decision G 1/93 correctly states that both Article 123(2) as well as Article 123(3) EPC are protecting the interests of third parties[17], it fails to give reasons why the combined and unrestricted effect of both provisions is necessary to implement the purpose of the provisions.

4. Solving the Conflict – A Task for the Legislator?

The Enlarged Board of Appeal has refrained from solving the conflict between the different requirements in Article 123 EPC, thus laying the responsibility on the legislator stating that there was no support for the idea in the Convention that there was a mutual relationship between paragraphs 2 and 3 of Article 123. According to the Board, such an interpretation was not in line with the mandatory character of the provisions. Hence, both provisions had to be applied independently from each other.[18] However, it seems that the legislator was not aware of his responsibility. As *Schulte* says that, there is little persuasive power in presenting the Munich Diplo-

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[14] Conference Report, 28 IIC 914, 917 *et seq.* (1997).

[15] BOSSUNG, Gedanken zur Weiterentwicklung der Rechtsprechung der Großen Beschwerdekammer des EPA ausgelöst durch den Fall G 1/93, in: The Law and Practice of the Enlarged Board of Appeal of the EPO during its First Ten Years 135 (1996).

[16] Patentgesetz mit EPÜ, § 21 PatG, note 77 (7th ed. 2005), citing further references.

[17] G 1/93, *supra* note 4, Reasons pt. 9.

[18] G 1/93, *id.*, Reasons pt. 13.

matic Conference, at which the Convention was signed, as an insidious trapper to the detriment of the proprietor. Rather, it may be assumed that, when conceiving Article 123(3) EPC, its consequences were not fully foreseen and a regulation by law was omitted.[19]

In the meantime, the legislator has passed the ball back to the Boards of Appeal.[20] In the preparatory work to the EPC 2000, an amendment to Article 123 EPC was discussed but eventually not undertaken. A study prepared by the EPO, looking at the situation at the national level with corresponding provisions, gives the information that the problem of undisclosed limiting features has been mentioned in Sweden and in the United Kingdom, and that Germany seems to have been the only country to address the issue specifically.[21] As outlined in this study, German jurisprudence was able to solve the problem in a satisfactory manner not entailing an unjustified loss of rights of the proprietor. As to the effects of G 1/93 for the practice of the EPO, the study summarizes that the Boards of Appeal have already developed a number of solutions, taking each case on its merits, to avoid the trap resulting from the combined requirements of Article 123(2) and (3) EPC. These included the solution specifying that an added feature, which merely excludes protection for part of the subject-matter of the claimed invention, does not breach Article 123(2) EPC. This solution deserved particular consideration and appeared to be capable of further development in case law.[22] On the basis of this confidence in the wisdom of the judiciary, the Patent Law Committee decided not to put a proposal for the amendment of Article 123 EPC on the agenda of the Diplomatic Conference for the revision of the Convention.[23]

5. Developing the Law – The Enlarged Board of Appeal has Defined its Task

In the development of its case law after G1/93, the Enlarged Board of Appeal has dealt in more detail with its role in developing the law in relation to the role of the legislator. In G 1/97 the Board stated whereas in a codified legal system such as the EPC, the judge cannot substitute himself for the legislator who is the primary source of law, it is his task to fill lacunae in the law in particular where situations arise for which the legislator has omitted to provide.[24] This is an approach quite different from G 1/93 in which the main reason for not solving the inconsistency in the law was lacking support for such a solution *de lege lata*.

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[19] SCHULTE, *supra* note 16.

[20] *See* GÜNZEL, Der Konflikt zwischen der Beseitigung unzulässiger Erweiterungen der Anmeldung und dem Verbot der Erweiterung des Schutzbereichs – eine unentrinnbare Falle?, 2000 Mitteilungen der deutschen Patentanwälte (Mitt.) 81, 87.

[21] Doc. CA/PL 26/99, November 4, 1999, at 5, sec. III, pt. 14.

[22] *Id.*, at page 14, pt. 44.

[23] Doc. CA/PL PV 11, Minutes of the 11th meeting of the Committee, pts. 15-22.

[24] G 1/97, 2000 OJ EPO 322 – Request with a view to revision/ETA, Reasons pt. 3b.

6. The Applicant's Needs – Fair Opportunities for Amendments

The Reasons given in G 1/93 convey the impression that even the judges deciding the case felt uneasy about the effects of the combined and unrestricted application of Article 123, paragraphs 2 and 3, EPC. In the words of the Enlarged Board of Appeal, theses provisions can operate rather harshly against an applicant who runs the risk of being caught in an inescapable trap. However, as do many other decisions, also G 1/93 also points to the incontestable fact that it is the applicant who bears the ultimate responsibility for any amendment.[25]

This statement can be fully supported. The applicant has to make up his mind which possible version of a patent serves his economic interest. A patent application is an investment which is only justified if there is a real chance of exploitation compensating this investment. Nobody can relieve the applicant from the decision whether the mere chance to obtain a patent is a fair balance for disclosing the invention to the public and spending the money for prosecuting the application and maintaining the patent. Of utmost importance for this assessment is the possible extent of protection defined by the claims.

When applying for a patent, the applicant cannot normally be expected to know the complete relevant state of the art. Otherwise, he would not need a search report from the patent office for evaluating his chances to further prosecute his application. Hence, quite often the need arises to redraft the specification in order to take account of state of the art revealed by the search report or later on in grant proceedings. In other situations, the exploitation of the invention during prosecution of the application shows that aspects of the invention are of specific technical relevance or of economic importance which were not in the focus of the drafter of the first claims. For these reasons, it is an indispensable requirement for a well functioning patent system that the applicant has a fair chance to modify his claims during prosecution. When proposing amendments, the applicant or his representative is aware of the prohibition of adding new matter and he will normally do his best to comply with it, but there are different standards applied even on the basis of the same or equivalent legal provisions.

The EPO has to examine whether or not an amendment fulfils the requirements under Article 123(2) EPC.[26] As stressed by the Enlarged Board of Appeal, it is in the public interest that these requirements are observed. Hence, at any stage of the proceedings the principle of examination *ex officio* applies and it is the unrestricted duty of the Examining Division to prevent new matter from being added to the specification. This makes it clear that in respect of the formal allowability of amended claims, the responsibility of the Examining Division is in no way less than the responsibility of the applicant. On the contrary: Whereas it is legitimate for the applicant to pursue his individual interest in obtaining appropriate protection, it is the prime responsibility of the Examining Division to safeguard the public interest

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[25] G 1/93, *supra* note 4, Reasons pt. 13, at the end. *See* also Guidelines for Examination in the EPO, C-I, 2.

[26] Guidelines for Examination in the EPO, C-VI, 5.3.

in allowing only amendments that have a proper basis in the original application. Considering the different roles of the applicant and the EPO, it is simply not fair to charge the applicant with the full risk that different departments of the EPO apply different standards in interpreting Article 123(2) EPC in respect of the same invention.

7. Added Subject-Matter – The Strict Standard of the EPO

The possibilities for the applicant to make limiting amendments to the claims in European grant proceedings are anyway more restricted than under national practice. This stems from the fact that the concept of disclosure in EPO practice is very strict, a consequence of the narrow concept of novelty allowing the protection of selection inventions. An amendment is only allowable if it is directly and unambiguously derivable from the application as filed. This is not accepted in case of numerical ranges for any value or sub-range within the originally disclosed range[27], whereas under German practice, a range is supposed to disclose any value within that range, hence also any sub-range.[28] Another example of the strict concept of disclosure is the isolation of a feature from a complete embodiment. The introduction of a limiting feature into a claim originally disclosed only in an example is quite often objected to with the argument that the feature cannot be separated from the other features of the example (inadmissible singling out). If the applicant cannot refer to information in the general part of the description pointing to the possibility of using the specific feature outside the example, he is only in exceptional cases successful in arguing that the skilled person was able to recognize that there was no close functional or structural relationship between the feature requested to be introduced and the remaining features of the example. National instances seem to have fewer problems in accepting that the skilled person is able to separate a feature described in an example from the other details of the example.[29] The same objection may be expected from the EPO if the applicant tries to limit an independent claim with less than all features from a dependent claim.[30] In general, a rigorous standard is applied and an amendment is not allowed if any doubt remains as to whether or not it was derivable from the original application.[31]

These few remarks may be sufficient to show that limiting a claim in grant proceedings before the EPO may not be an easy matter if it is not a mere combination of an independent claim with one or more claims directly depending on it. More

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[27] *See* in detail SPANGENBERG, in SINGER/STAUDER, Art. 54 EPÜ, note 70 *et seq.* (4th ed. 2006)

[28] Following the decisions of the German Federal Supreme Court (Bundesgerichtshof, BGH) 1990 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 510 – *Crackkatalysator* I and 2000 GRUR 591 – *Inkrustierungsinhibitoren*; for a comparison with EPO practice, *see* SCHULTE, *supra* note 16, § 3 PatG, note 105.

[29] *See e.g.* recently, German Federal Supreme Court (Bundesgerichtshof, BGH), 2008 GRUR 60 – *Sammelhefter*, citing further references..

[30] *Cf.* Case Law of the Boards of Appeal of the EPO, III.A.1 p. 240 *et seq.* of the English version (5th ed. 2006).

[31] *Id.*, at III.E.

important in the present context, they may also show that there is broad room for interpreting the legal requirements differently.[32] This does not only increase the risk for the applicant that a limiting amendment in grant proceedings is later on held inadmissible in opposition proceedings, it also triggers the consequence that any opponent will first attack any amendments made in grant proceedings. This not only overemphasizes formal aspects in opposition proceedings and detracts from their proper function to examine whether the substance of the invention justified its protection, it also implies the temptation for the Opposition Division to dismiss the case on the basis of mere formal objections without even touching the invention's substance.

8. Features not Providing a Technical Contribution

Notwithstanding its rigid approach, G 1/93 gives rise to the hope that an inadmissible amendment in grant proceedings might remain in the claims of the patent in certain cases. According to the second point of the order, this should be possible if the respective feature merely limits the protection conferred by the patent without providing a technical contribution to its subject-matter.[33] A study undertaken by *Günzel* reviewing cases decided until 1999 showed that this hope was fulfilled only in a minority of cases.[34] This result cannot be surprising since amendments to claims are made in order to improve the chance that the claims be held allowable in most cases. However, an amendment not contributing to the subject-matter of the patent is an amendment without substance which is *per se* inappropriate to influence the assessment of the substantive criteria for patentability.

G 1/93 was apparently influenced by a line of case law going back to the 'Snackfood' decision,[35] making a distinction between essential and non-essential features in a claim for the purpose of examining the validity of the priority right. Correspondingly, in G 1/93 the distinction is made between a feature providing a technical contribution to the subject-matter of the claimed invention and a feature merely excluding protection for part of the claimed subject-matter. The addition of the former is considered to give the applicant an unwarranted advantage by obtaining patent protection for something he had not properly disclosed and which was held unallowable. By contrast, the addition of the latter is considered neither to give an unwarranted advantage to the applicant nor to adversely affect the interests of third parties and is held not to be extending beyond the content of the application as filed within the meaning of Article 123(2) EPC. Hence, the feature can be maintained in the claim.[36] In this way, G 1/93 limited the inescapable trap to situations in which

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[32] In the Case Law of the Boards of Appeal of the EPO (5th ed. 2006), the relevant Chapters III. A to E are 45 pages long.

[33] G 1/93, *supra* note 4, 2nd point of the order.

[34] GÜNZEL, *supra* note 20, at p. 87.

[35] T 73/88, 1992 OJ EPO 557 – Snackfood/HOWARD.

[36] G 1/93, *supra* note 4, Reasons pt. 16.

the added non-disclosed feature changes the inventive concept of the claimed subject-matter.

However, on the basis of more recent case law this loophole seems to be closed. In G 2/98, the Enlarged Board of Appeal dealt with the concept of the 'same invention' within the meaning of Article 87(1) EPC.[37] It was held that a strict interpretation of this concept was necessary, equating it to the concept of 'the same subject-matter' referred to in Article 87(4) EPC. A distinction between technical features that are related to the function and effect of the invention and technical features which are not, as applied according to the Snackfood approach, was considered inappropriate. This conclusion turned out to be necessary in order to avoid inconsistencies in the treatment of conflicting applications.[38] Referring shortly to G 1/93, the Enlarged Board merely stated that that decision dealt with a completely different legal situation.[39] However, since the question to be answered in G 2/98 was a problem of the disclosure of the invention, it was clear that corresponding conclusions had to be drawn for the allowability of amendments. Already before decision G 2/98 was issued, attention had been drawn to the interdependence of both issues.[40]

In its decisions concerning the admissibility of disclaimers, the Enlarged Board of Appeal, while still insisting on its earlier statement that G 1/93 and G 2/98 are concerned with different legal situations, expressly stated that the European patent system must be consistent and that the concept of disclosure must be the same for the purposes of Article 54, 87 and 123 EPC.[41]

Two recent decisions show that the distinction between essential and non-essential features has been abandoned. In decision T 910/03, an *ex parte* case, the applicant had requested that a feature be deleted from the claim as originally filed, relying on G 1/93 and alleging that the feature did not provide a technical contribution to the claimed subject-matter. The Board summarizes the case law from G 1/93 to G 1/03 in stating that the test for deciding whether amendments meet the requirements of Article 123(2) EPC and the test for deciding whether priority has been validly claimed are the same: *viz.* the disclosure test. On this basis, an amendment is considered as complying with the requirements of Article 123(2) EPC if it does not change the technical information contained in the application as filed. In this respect, the Board states that no distinction must be made between features that are related to the function and effect of the invention and features which are not. By definition, all features of an independent claim are said to be essential features.[42] As to G 1/93 invoked by the appellant, the decision holds that that decision does not concern the problem of claim broadening by deleting a feature before grant but is related to the adding of an undisclosed feature before grant and the conflict arising thereof in opposition proceedings. Hence, there was no need to examine whether the

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[37] G 2/98, 2001 OJ EPO 413 – Requirement for claiming priority of the "same invention".

[38] G 1/93, *supra* note 4, Reasons pt. 8 and 9.

[39] *Id.*, Reasons pt. 10.

[40] GÜNZEL, *supra* note 20, at p. 86 *et seq.*

[41] G 1/03, 2004 OJ EPO 113 – Disclaimer/PPG and G 2/03, *supra* note 10, 2004 OJ EPO 448 – Disclaimer/GENETIC SYSTEMS, Reasons pt. 2.1.2 and pt. 2.2.2, last paragraph; in the following only G 1/03 is cited.

feature requested to be omitted provided a technical contribution to the claimed subject-matter.

In T 580/01, the Opposition Division had allowed the introduction of a disclaimer on the basis of G 1/93 and the criteria set out therein. The Board of Appeal held the disclaimer to be inadmissible since, contrary to G 1/03**,** the prior art giving rise to the disclaimer was not an accidental anticipation. The Board did not even mention G 1/93 as a possible basis for a disclaimer in opposition proceedings.[43]

From the preceding the following can be concluded:

G 1/93 allows that a patent is maintained unamended, although it contains an undisclosed feature added during examination, if the feature does not provide a technical contribution to the claimed invention. In G 2/98 and in G 1/03, the Enlarged Board of Appeal had the opportunity to clarify the relation between this position and the abandonment of the concept of essential and non-essential technical features for other purposes related to the disclosure of the invention, an opportunity not made use of. Nevertheless, it appears from the reasons given in G 2/98 and in G 1/03 that G 1/93 was not considered as contradicting the conclusions reached in the later decisions. Also T 910/03 appears to confirm this. There remains, however, a serious problem of consistency. The statement in G 1/03 that the concept of disclosure must be the same for Articles 54, 87, and 123(2) EPC also appears to be relevant to the situation envisaged in G 1/93.

From G 2/98 and G 1/03 the general rule can be derived that a technical feature, independent of its contribution to the claimed invention, always represents technical information relevant to the application of Article 123(2) EPC.[44] However, according to G 1/93 a technical feature added after the filing date can remain in the claim in opposition proceedings without violating Article 123(2) EPC if it does not provide a technical contribution to the claimed invention. Hence, either the rule stated in G 2/98 and G 1/03 is not a general rule or the way out of the trap opened in G 1/93 is no longer available.

9. The Disclaimer Decisions Offer a Solution to the Problem

Since 1994 the inescapable trap is open and, although the situation has been quite often deplored, it has even become worse for the applicant and proprietor, as shown above. There are, however, good reasons to reconsider the problem. The most important reason is the ruling of the Enlarged Board of Appeal in its disclaimer decisions:

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[42] T 910/03 of July 7, 2005, not in OJ EPO, Reasons pt. 2. The decision has not been followed in T 404/03 of July 12, 2006, not in OJ EPO, since a difference has to be made between the addition and the deletion of a feature, a reason not relevant for the problem addressed here. Indeed, the deletion of a technical feature from a claim in grant proceedings is possible if, on the basis of the whole disclosure, the embodiment without the feature is implicitly disclosed.

[43] T 580/01 of November 29, 2005, not in OJ EPO.

[44] The only remaining exception may be the situation that the inadmissibly added feature becomes redundant by the addition of another more restricting feature, *cf.* T 724/03 of October 19, 2006, Reasons pt. 2.4.3.

> An amendment to a claim by the introduction of a disclaimer may not be refused under Article 123(2) EPC for the sole reason that neither the disclaimer nor the subject-matter excluded by it from the scope of the claim have a basis in the application as filed.[45]

In Order no. 2.1, three situations are specified in which disclaimers may be allowable. However, the Enlarged Board of Appeal abstained from defining the list in no. 2.1 as limitative. Rather, the Board expressly stated that the admissibility of disclaimers was only examined in relation to the situations arising in the proceedings underlying the referrals.[46] Furthermore, the Board clarified that disclaimers are inadmissible in the situations of non-accidental anticipations and non-working embodiments.[47] Apparently the Board wanted to leave the possibility open that a disclaimer may be admissible in situations different from those arising in G 1/03. Therefore, it is legitimate to examine whether the inescapable trap is such a situation.[48]

The unresolved conflict in the combined and unrestricted application of the requirements in paragraphs 1 and 2 of Article 123 EPC may be solved by allowing a disclaimer replacing the inadmissible limitation introduced in grant proceedings. Such a disclaimer could be drafted as follows, supposed the added feature is XYZ:

> … with the proviso that embodiments not exhibiting feature XYZ are disclaimed.[49]

The deletion of XYZ as a technical feature of the claimed combination would make clear that XYZ is not part of the invention, whereas the added disclaimer would retain XYZ as an element limiting the protection.

In G 1/03, the Enlarged Board of Appeal allowed a disclaimer in situations in which they were necessary for legal reasons and did not affect the technical teaching in the application or patent. This was accepted in order to cope with the exceptions to patentability for non-technical reasons, the most important examples being Articles 52(4) and 53a EPC.[50]

The situation of the inescapable trap justifies a disclaimer for similar reasons. As has been observed on an empirical basis, most inadmissibly added features are of little or no importance for the substance of the case.[51] Starting from the assumption that the claimed invention is patentable without the added limitation, the interests of

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[45] G 1/03, *supra* note 41, Order no. 1 and identical headnote.

[46] G 1/03, *id.*, Reasons pt. 2, last paragraph.

[47] G 1/03, *id.*, Reasons pt. 2.3 and 2.5. Hence, the decisions cannot be cited against the allowability of a disclaimer for avoiding the inescapable trap; see however, T 1180/05, *supra* note 8, Reasons pt. 6.3.

[48] *See* SCHULZE, Escaping the inescapable,2005 epi Information, 83.

[49] Not drafted in the form of a disclaimer, the proviso would read:
… with the proviso that protection is only conferred for embodiments exhibiting feature XYZ.

[50] G 1/03, *supra* note 41, Reasons pt. 2.4.

[51] BOSSUNG, *supra* note 15, at 144; for examples in the case law after G 1/93 *see* GÜNZEL, *supra* note 20.

the public cannot be jeopardized by the grant and the maintenance of a patent. The applicant has made his contribution to the development of the art and he has a legitimate interest in obtaining and retaining appropriate protection for this contribution.

On the other hand, the general public has a legitimate interest in legal security as emphasized in G 1/93**.** This interest is related to two aspects:

First, it has to be safeguarded that the proprietor is not given an unwarranted advantage by the presence of the added feature. The public must be able to rely on the fact that the patent may only be granted for an invention originally disclosed in the application. To this end, it must be assessed that the claimed subject-matter fulfils the substantive requirements of patentability *without the limiting feature* introduced during examination.

Second, it has to be safeguarded that the protection conferred by the patent is not extended after grant. The public must be able to rely on the publication of the patent in order to determine its possible scope of protection. In this respect, a declaration of the proprietor should be allowed that he renounces any protection exceeding the claimed subject-matter *with the limiting feature*.

The proposed disclaimer satisfies these interests since the subject-matter to be examined for patentability is only defined with originally disclosed features and the added disclaimer prevents the extension of protection. This proposal takes the essential interests involved into account. In particular, there is no legitimate interest of the general public that a patent be revoked although the claimed invention involves patentable subject-matter which had been originally disclosed. There is no legitimate interest in procedural hardship to the detriment of the proprietor if the interest of the public as defined above is safeguarded in an appropriate manner.

According to established case law, procedural declarations of the applicant or proprietor before the EPO may amount to a substantive abandonment of subject-matter with the effect that the abandoned subject-matter is no longer pending in grant or opposition proceedings as the case may be.[52] Decision G 1/03 is concerned with a typical case of such a declaration and, at least as far as the exceptions to patentability are concerned, the situation is quite similar to the situation of limiting subject-matter added in grant proceedings and objected to in opposition proceedings:

If there is an invention without the added limitation, there is no substantive technical reason to revoke the patent. However, for a legal reason, in this case the procedural reason in Article 123(2) EPC, the patent cannot be maintained as granted. Therefore, the procedural declaration of the proprietor that he renounces any protection based on subject-matter falling under the limitation introduced in grant proceedings should be allowed in the form of a disclaimer.

In both situations, the disclaimer is made for non-technical reasons and should not be seen as a negative technical feature of the invention made and to be examined but as a declaration of the proprietor concerning the extent of protection conferred by the patent. The proposed drafting of the disclaimer is intended to make apparent

[52] Case Law of the Boards of Appeal, VI.J.3.1.1 (5th ed. 2006).

that the wording excluding subject-matter is not a negative technical feature in the claim but a substantive declaration limiting the protection which the claim would confer otherwise. Thus, it is similar to disclaimers used in the German case law,[53] but it distinguishes more clearly in the claim itself the two aspects, by separating the originally disclosed features relevant for assessing validity, on the one hand, and the inadmissibly added feature, on the other hand, which is merely relevant for the extent of protection. This makes it evident that the declaration in the disclaimer is not related to proceedings concerned with the validity of the patent but to infringement proceedings under Articles 64 and 69 EPC.

10. How to Escape from the Trap

Coming back to the starting point, it has to be stated that decision G 1/93 has not succeeded in gaining persuasive power outside the EPO.[54] The inescapable trap is a concept which does not only lead to harsh results as admitted in the decision. Other decisions formulate more drastically, stating that the result is paradoxical[55] or unjust, not appropriate and not intended by the Convention.[56] The hope that the unfairness of the concept would be eased by a liberal admission of limiting amendments has not materialized. On the contrary, the requirements for amendments have been applied even more restrictively in the meantime.

It is highly unsatisfactory if a European patent is revoked in central European opposition proceedings, although the patent would have any a chance to be maintained in the designated Contracting States on the basis of the same grounds for revocation. This is not only contrary to the intentions of the legislator and the purpose of the harmonized European patent law but also in contradiction to the task of the EPO to strengthen the European patent system as enshrined in the preamble to the EPC. Harmonization within the European patent system should not be a one way street only for the national courts to follow. Considering that national courts have found appropriate solutions for the conflicting requirements prohibiting the addition of subject-matter as well as the extension of protection, a problem common to the European and the national patent systems, the Boards of Appeal should not confine themselves to state that the problem cannot be solved. The disclaimer decisions have prepared the ground for reconsidering the matter. Such reconsideration would not be detrimental to the authority of the Enlarged Board of Appeal. Rather, it would confirm its readiness to draw appropriate conclusions from new insights as shown already in G 9/93[57] excluding an opposition by the proprietor and overruling G 1/84.[58] Since the Enlarged Board of Appeal can only deal with ques-

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[53] For references, *see* SCHULTE, *supra* note 16, § 21 PatG, notes 70–73.

[54] In addition to the authors cited above, *see* SCHÄFERS, in BENKARD, Europäisches Patentübereinkommen, Art. 123, note 116 (2002); KRASSER, Lehrbuch des Patentrechts, (5th ed. 2004), with numerous further references.

[55] T 231/89, 1993 OJ EPO 13 – Flat torsion spring/BRUYNZEEL, Reasons pt. 3.1.

[56] T 384/91, 1994 OJ EPO 169, the referring decision in case G 1/93, Reasons pt. 2.5.

[57] G 9/93, 1994 OJ EPO 891 – Opposition by patent proprietor/PEUGEOT AND CITROEN.

[58] G 1/84, 1985 OJ EPO, 299 – Opposition by proprietor/MOBIL OIL.

tions referred to it, parties and Boards of Appeal are called upon to find an appropriate case. Considering the number of cases in which the problem is discussed and the fact that proprietors continue to fall into the inescapable trap[59], this task should not be too difficult.

[59] *E.g.* T 584/06 of October 31, 2006, not in OJ EPO and T 1180/05, *supra* note 8.

Patents without Injunctions? – Trolls, Hold-ups, Ambushes, and Other Patent Warfare

Wolfgang von Meibom and Ralph Nack

1. Introduction

It is a fundamental concept of patent law that a patent is an *exclusive right*. This idea has existed in modern patent law since its establishment in the 18th/19th century. It is for example expressed in the following provision of the U.S. Constitution of 1787: 'The Congress shall have the power (…) to Promote the Progress of Science and the useful Arts by securing for limited times to Authors and Inventors the exclusive right to their respective writings and discoveries.'[1] Likewise, Sec. 4 of the Patent Act of the German Empire (1877) stated: 'The patent shall have the effect that nobody is entitled to commercially manufacture, put into circulation, or to keep for sale the subject matter of the invention without patentee's consent. (…)' Nowadays, also the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs) defines in Article 28: 'A patent shall confer on its *owner the following exclusive rights:* (…)'

In short, the above concept means that no person other than the right owner is entitled to use the patented subject matter, *i.e.* that he may *prohibit* others the respective use.[2] However, there are three basic scenarios where courts and legal scholars discuss the idea that the freedom to exercise an exclusive right should to be restricted, due to the market conduct and/or the market power of the patentee. The keywords commonly used to identify the respective scenarios are: 'patent troll', 'patent hold-up', and 'patent ambush'.

In these scenarios, the question is whether the effect of a patent shall be limited to monetary compensation, *i.e.* the patentee is no longer entitled to *prohibit* others the use of the patent by means of an *injunction*. Focusing on the 'troll' scenarios, this article in honor of Professor Straus analyzes whether this debate gradually shifts towards a renunciation of the '*exclusive rights*' doctrine, *i.e.* whether there are *patents without injunctions*.

2. Are 'Trolls' Invading the World of Patents?

In the literal sense, a 'troll' is a fearsome member of a mythical anthropomorphic race from Norse mythology. Trolls can be as huge as giants or as small as dwarves.

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1 U.S. Const. Art. I, Sec. 8, Cl. 8.

2 *See e.g.* KLOSTERMANN, Das Patentgesetz für das deutsche Reich vom 25. Mai 1877, 138 *et seq.* (1877).

They are often regarded as having poor intellect, great strength, big noses, long arms, and as being hairy and not very beautiful.[3]

Do these mythical beings invade the world of patents? The legend says that in 2001 Tech Search LLC bought a patent and sued Intel. Intel's then Assistant General Counsel, Peter Detkin, was not pleased by this attack and publicly called TechSearch 'extortionist'. After being sued for defamation, Detkin started to use the term 'troll' for the plaintiff to avoid more lawsuits.[4]

Although the term 'patent troll' is nowadays widely used to describe a certain behavior in patent litigation, it is actually hard to define what its exact notion is. Referring to the normal use of this term, one would expect a patentee, lacking great intellect and civilized behavior, but having great strength, and attacking the civilized world of technology companies.

The most prominent case commonly associated with the phenomena of 'patent trolls' is probably *EBay Inc. v. MercExchange LLC*.[5]

EBay used a technology in its online auction service for which MercExchange owned *inter alia* U.S. Patent 5,845,265, covering EBay's '*Buy it Now*' function (about 30 percent of the company's business). In 2000, EBay started to negotiate with MercExchange's to buy the respective patent portfolio. When EBay stopped the negotiations, MercExchange sued EBay for patent infringement in the District Court for the Eastern District of Virginia. In 2003, the Jury found EBay had willfully infringed the company's patents. Following the verdict, MercExchange sought an injunction to prevent EBay's continued use of its patent, but the District Court denied the request.[6] The United States Court of Appeals for the Federal Circuit (CAFC) reversed the District Court, stating that there was a 'general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances.'[7] The Supreme Court overturned the CAFC, holding that issuing an injunction in case of patent infringement is subject to the principles of equity, so that the '*traditional four factor test*' has to be applied in each case (for the legal discussion of this case see below).

In his concurring opinion to the EBay decision,[8] Justice Kennedy makes an analysis of the (alleged) characteristics of the plaintiff in this case – and similar cases –, which probably a number of people would share:[9]

> An industry has developed in which firms use patents not as a basis for producing or selling goods but, instead, primarily for obtaining licensing fees. (…) For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy

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[3] Wikipedia results for the search word 'troll', available at <www.wikipedia.org> (as of January 2008).

[4] HALLER/WIGGINS, The patent troll myth, available at <http://www.buildingipvalue.com/06US_Can/113_116.htm> (as of May 2008).

[5] *EBay Inc. et al. v. MercExchange, L.L.C.*, 126 U.S. 1837 (2006). The case was finally settled in spring 2008.

[6] *EBay Inc. et al. v. MercExchange, L.L.C.*, 275 F.Supp 2d 695 (2003).

[7] *EBay Inc. et al. v. MercExchange, L.L.C.*, 401 F.3d 1323 (2005).

[8] *EBay Inc. et al. v. MercExchange, L.L.C.*, *supra* note 5 (J Kennedy concurring).

> licenses to practice the patent. When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.[10]

Having in mind the common notion of the word 'troll', Kennedy's analysis seems to indicate three main characteristics of a 'patent troll':

(1) The troll has mere financial interests in patent enforcement (= poor intellect?).
(2) The patent enforcement is ruthless; the patentee asks for exorbitant licensing fees (= lack of civilized behavior?).
(3) The troll has undue leverage in patent litigations (= great strength?).

Looking at the above list, one may think that it is time to start troll hunting. However, before we shoulder arms, it is worth taking a close look at these three characteristics: Are they really unique to trolls? Or is one man's troll even another man's elf?

2.1 Mere financial interests

'Trolls' have mere financial interests when enforcing their patent portfolio (maybe they have even only one single patent). They do not want to defend a certain technology market, or defeat product pirates. They merely want to get licensing fees for their patent. However, the question is whether there is any wrong in this approach.

From a policy point of view, it should be noted that the patent system was *inter alia* created to provide a monetary *reward* to those inventors, which developed a commercially successful technology. In other words, the patent system aims to guarantee a *return on investment* if the invention turns out to be valuable.[11] This (limited) guarantee is in itself an *incentive* to invest in the research and development of new technologies.[12] Consequently, the pecuniary aspect of patent exploitation is an inherent part of the overall economic concept of the patent system.

This means, in turn, that a patentee seeking financial reward for its invention is perfectly in line with the fundamental paradigms of patent law. Therefore, the decisive question is whether the precise way the patentee seeks such monetary reward is totally in its discretion, or whether any patent exploitation other than by practicing the invention is regarded as somehow undesirable.

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[9] *See e.g.* BUDRAS, Leichte Beute für Patent-Haie, Frankfurter Allgemeine Zeitung, March 1, 2008. There is a plethora of academic definitions of 'patent trolls'; most of them however align with Justice Kennedy's description, *see e.g.* BARKER, Troll or No Troll? Policing Patent Usage with an Open Post-Grant Review, 2005 Duke L. & Tech. Rev. 9; LANDERS, Let the Games Begin: Incentives to Innovation in the New Economy of Intellectual Property Law, 46 Santa Clara L. Rev. 307 (2006).

[10] *EBay Inc. et al. v. MercExchange, L.L.C.*, *supra* note 5.

[11] *See* KRASSER, Patentrecht, 34, 36 *et seq.* (5th ed. 2004).

[12] KRASSER, *id.*, 34.

There is no indication in patent law policy *at all* that the patentee should be only entitled to monetary reward if it also practices the claimed invention by selling products or services under the limited monopoly conferred by the patent.[13] Patents have rather been assignable and licensable from the very beginning of patent law, which means that it is legally accepted that the patentee license sells its patents to third parties which then make use of the claimed invention.[14]

Therefore, absent a fundamental change in patent law policy, it has to be accepted that the precise way the patentee seeks such monetary reward is totally in its discretion.

This of course does not exclude that the lawmaker adopts – for whatever reason – a different policy in the future. Absent such decision, courts and government authorities however have to respect this fundamental doctrine.

From an economical point of view, there are various possible reasons why a patentee does not practice the patented technology himself, *i.e.* he 'merely' has financial interests in patent enforcement. The most obvious one is that the patentee is not able to start its own 'traditional' commercial exploitation for statutory/regulatory reasons. For example, universities[15] and other publicly funded research institutions are quite restricted in many countries as commercial activities are concerned. Therefore, patent licensing (or selling) is in many cases the only feasible way of exploiting their tremendous treasure of technology.[16]

Often connected to the academic spheres, some companies simply adopted the business model of a pure technology developer. The respective reasons are very diverse, ranging from scientific enthusiasm to smart risk control. As it is known, the development of *e.g.* new marketable pharmaceutical substances requires extraordinary financial resources. In contrast, the discovery of the initial chemical or biological substance (which could later become the basis of an approved drug) is normally more a scientific than a commercial endeavor. Therefore, some companies focus on development of substances. These substances are *interesting* for further research, and the companies sell these substances to the industry. Needless to say, patent applications on these substances are the key element of this business model.

One step further ahead, many companies exploiting the patent are no longer linked to any kind of research & development entity. Probably the most respected species in this area are the patent funds.[17] The basic concept of a patent fund is not fundamentally different from a 'normal' stock or bond fund. Investors buy shares of

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[13] KRASSER, *id.*, 33 *et seq.*

[14] Nevertheless, since the early days of modern patent law, the public opinion was somehow skeptical about any patent exploitation other than by practicing the invention, *see* MAGLIOCCA, Blackberries and barnyards: patent trolls and the perils of innovation, 82 Notre Dame L. Rev. 1809 (2007).

[15] *See* LEMLEY, Are Universities Patent Trolls?, Stanford Public Law Working Paper No. 980776, available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=980776> (as of May 2008).

[16] KIEFF, Facilitating Scientific Research: Intellectual Property Rights and the Norms of Science, 95 Nw. U. L. Rev. 691 (2001).

[17] One of the pioneers in this field was *e.g. IPM AG.*

the fund,[18] which in turn buys patents (or exclusive licenses) on promising[19] technologies. Nevertheless, unlike 'normal' stock or bond funds, the fund management may also have to enforce these patent rights.

Besides the more complex patent funds, there are countless small to medium size patent exploitation companies. These companies buy or license-in patents or patent portfolios from various sources.[20] They aim to collect royalty fees or search for investors for the respective technology.

This entire development is driven by two factors: First, the western economies are transforming into knowledge-based societies, where 'manufacturing' of *knowledge* gradually replaces manufacturing of tangible goods.

Second, patent rights are increasingly transformed into publicly marketable financial products, easing the acquisition of venture capital and allowing a reasonable hedging of investment risks:[21] The acquisition of venture capital is often critical in technological developments, and patents or patent applications are often the only 'tangible' asset of these companies. It is therefore probably not very inventive to create new financial products, which are directly or indirectly based on the expected value of a patent portfolio, so that the average Joe can invest in prosperous technology – without having any substantive understanding of the concepts of patent law.[22]

Is this an 'overheated' development in patent law? Answering the ironic question 'Is there a global warming in patents?' Joseph Straus sapiently says: 'Patents are the fuel of the global economy.'[23] There is nothing to add.

Therefore, in summary, from both a policy and an economical point of view it seems inappropriate to regard a company having mere financial interest in patent enforcement as an 'inferior IP creature'.

2.2 Ruthless patent enforcement and excessive royalty fees

The assumption that 'trolls' practice 'ruthless' patent enforcement is probably the centerpiece of the entire 'troll' debate. However, the question is again: Are 'trolls' doing any worse than 'normal' patentees do?

It should be first noted that tactics are part of any patent litigation. In many patent cases, the patentee has a relatively free choice of jurisdiction, in particular the allegedly infringing product is sold worldwide or at least within a certain region (*e.g.* Europe, USA). As for the territory of the European Union, this principle is set

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[18] From an investor's point of view, a patent fund allows to hedge the risks of an investment. A huge financial commitment in one technology development project would often be an unacceptable risk allocation.

[19] Therefore, the fund management needs to establish reliable patent evaluation methods.

[20] The exploited patent portfolios quite frequently share the fact that they come from collapsed companies.

[21] *See* also McDonough III, The myth of the patent troll: an alternative view of the function of patent dealers in an idea economy, 56 Emory L. J. 189 (2007).

[22] In order to set up these financial 'user interfaces', a dynamic and transparent patent market is currently emerging. The rapidly developing IP auction market is probably just a first sign of this future market. A pioneer in this field is *e.g. Ocean Tomo*.

[23] Straus, Is there a global warming in patents?, 2008 World Intel. Prop. J. 58.

forth *e.g.* in Article 5 (3) of the Council Regulation 44/2001/EC of December 22, 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters ('Brussels Regulation'). As the material civil procedure law is not harmonized in Europe, each Member State has its own court system with very specific characteristics. For example, the German patent litigation system is best know for its speedy, cost- and time efficient and reliable trials, so that about 70 percent of all European patent litigation cases are filed in Germany. Other Member States may have less speedy and reliable courts, but more efficient procedures for collecting evidence or seizing goods (*e.g.* Italy, Belgium and France). Therefore, an in-depth knowledge of the European patent litigation system enables the patentee to develop a very sophisticated litigation strategy, optimizing the strengths of the specific case, and avoiding its weaknesses. In addition, the characteristics of the various patent litigation courts within a specific jurisdiction may also vary significantly. Consequently, very careful planning of any patent litigation is crucial, in particular if it comes to multi-jurisdictional enforcement scenarios.[24]

So what are trolls doing different from 'normal' patentees? Are they not just picking the most promising court for their actions, just as everyone else does? *Quod licet Iovi, non licet bovi*?

On the one hand, one may say that 'trolls' merely make efficient use of the deficits/advantages of the statutory court system, just like everyone else could do it. On the other hand, if the patentee bombards the alleged infringer with a plethora of patent complaints in multiple courts, and all these complaints are blatantly groundless, it cannot be denied that the respective court system is abused for 'judicial harassment'. Such behavior goes far beyond normal tactics in patent litigation – and conflicts also most likely with criminal law (fraud). However, there is certainly no bright line between 'normal' tactics and abusive use of the court system, so that each case must be carefully examined as a whole.

Such abusive behavior becomes even more obscure *e.g.* if a right owner[25] files all its patent complaints in the court of a dozy Italian village[26], and the only judge of this court – having no substantive experience in patent law at all – always grants the requested preliminary injunctions, no matter how questionable the complaint is. This case – and similar other cases – may indicate a further weak point in the system: the human factor. It cannot be excluded that a patentee manages to establish a 'special' relationship to a particular court, which may then become its 'home court' for filing patent infringement claims.

A second aspect of 'ruthless' patent enforcement is the amount of royalty fees asked for by the patentee. This point is probably the *key issue* in the entire 'patent troll' debate. There is indeed one major difference between 'traditional' patentees and 'trolls': 'Traditional' patentees have to consider in most proactive patent litiga-

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[24] Von Meibom/Pitz, Die europäische 'Transborderrechtsprechung' stößt an ihre Grenzen, 1998 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 765.

[25] Calling himself 'Osama bin Laden of the patent law'.

[26] After the reform of the Italian intellectual property law in 2005, this practise is fortunately no longer statutory.

tions that they may need to cooperate with the alleged infringer somewhere in the future. This is either because they may be attacked by a counterclaim, or because the market may require joint efforts by both companies resulting in a cross-license agreement or even in a joint venture. Therefore, most 'traditional' patentees are hesitant to ask for excessive royalty fees, as this is likely to poison the atmosphere in the future (and they probably also refrain from filing completely unfounded claims).

In contrast, a 'troll' does not need to consider such aspects,[27] as its scope of business is normally completely separated from the alleged infringer's business. Consequently, most cases, which are declared as a 'troll attack' in the media, show one common element: The patentee asks for exorbitant royalty fees, sometimes exceeding the entire value of the attacked company. In many cases, the patentee offers large patent portfolios as a bundle, but no individual licenses. However, the respective patent portfolio contains only a very small number of valuable patents – the rest are 'trash' patents having no actual value for the licensee.

Such claims are of course a massive thread, no matter how absurd the case is, as any reasonable investor or creditor will seriously reconsider its commitment with the attacked company, if such a sum is at stake. Therefore, if there are any 'ugly trolls' in the patent world, patentees practicing such kind of patent enforcement are probably part of this species.

A third aspect of 'ruthless' patent enforcement is the systematic patent enforcement. The respective right owner not only attacks one or two alleged infringers, but rather sends cease and desist letters to an entire industry. Again, the question is whether such practice is *per se* a misuse of the system. Two aspects should be considered in this respect. First, if a technology is so successful that it becomes widely adopted in the industry, it would contradict the above-mentioned *reward* doctrine of patent law[28] to question the enforceability of a respective patent just for this very reason: the purpose of a patent is to ensure that the inventor's reward corresponds to the success of the claimed technology. Second, antitrust law may even require the patentee to claim non-abusive royalty fees from more or less *everyone* using its technology, see Article 82 (c) EC, stating that an abuse of a dominant position may in particular consist of applying 'dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage.'

A fourth aspect of 'ruthless' patent enforcement is the alleged invalidity of the enforced patents. While in Europe the expanding scope of patentable subject matter follows reliable rules,[29] the US decision *State Street Bank v. Signature Financial Group*[30] caused a complete collapse of all well-established – albeit poorly formulated – limitations of patent eligibility in 1998.[31] *State Street Bank* resulted in a mas-

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[27] RANTAEN, Slaying the troll: litigation as an effective strategy against patent threats, 23 Santa Clara Computer & High Tech. L. J. 159 (2007).

[28] *See e.g.* KRASSER, *supra* note 11, 34.

[29] *See* NACK, Die patentierbare Erfindung unter den sich wandelnden Bedingungen von Wissenschaft und Technologie, 303 *et seq.* (2003).

[30] *State Street Bank v. Signature Financial Group*, 149 F.3d 1368 (Fed. Cir. 1998).

[31] For an analysis of the development of the respective U.S. case law, *see* NACK, *supra* note 29, 9 *et seq.*

sive flood of patent applications on all sorts of obscure subject matter, in particular on innovations in the field of e-commerce, affecting the *entire* patent world, *i.e.* not limited to 'patent trolls'.[32] Although the very number of patent applications may already raise concerns, the real issue was that all of a sudden industries operating up to now essentially outside the patent world were confronted with the effects of the patent system – without any democratic decision making process preparing and evaluating this unparalleled change in law. This situation and the corresponding legal uncertainty were of course a perfect environment for surprising patent litigation attacks. *EBay v. MercExchange*[33] seems to be a good example for this crisis. However, this problem is certainly not of permanent nature,[34] as sophisticated defensive and offensive strategies have been meanwhile implemented – and a recent decision[35] of the CAFC even gives hope that the court is willing to retreat from its extreme position.

2.3 Undue leverage

Referring again to *EBay v. MercExchange*, the main strength of 'trolls' is that they cannot be attacked by offensive actions, *i.e.* patent counterclaims, because they do not operate a manufacturing business or trade. In addition to that, the *EBay* case also shows that complex products consisting of several interconnected technologies are more likely to be vulnerable to patent infringement attacks than simple products, because an injunction would block the complete product, until the infringing elements are removed.

However, are these factors always 'undue leverage'? Why should there be a bonus if the claimed invention is used within a sophisticated, complex product, and not alone? In addition, why should there be a statutory disadvantage for those patentees that pursue a fully legitimate business model, as explained above? Under this logic, one could also propose a statutory disadvantage for those corporations, which are so financially powerful that they can run a very sophisticated IP litigation department. In other words, there are certainly cases where the respective strength of both parties is far from balanced, but these scenarios are not limited to 'patent trolls', and the law does not interfere with these commercial battles – as long as there is no violation of competition law.

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[32] RANTAEN, Slaying the troll: litigation as an effective strategy against patent threats, 23 Santa Clara Computer & High Tech. L. J. 159 (2007) ('It is important to distinguish patent trolling from enforcing "bad" or poor quality patents'). But *see* LEMLEY, *supra* note 15 (arguing – without substantive prove – that 'most cases of patent "troll" arise because of the poor quality of the patent which does not have well-defined boundaries').

[33] *EBay Inc. et al. v. MercExchange, L.L.C.*, *supra* note 5.

[34] ALLISON/DUNN/MANN, Software Patents, Incumbents, and Entry, 85 Texas L. Rev. 1579 (2007).

[35] *See In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007). Actually, both decisions are quite close to the European principles, although the CAFC of course uses quite a different language to express these ideas.

2.4 Results

The 'patent troll' debate essentially represents a specific development in IP law, closely connected to increasing dynamics of the financial markets and the transformation of western economies into knowledge-based societies.

The analysis has shown that many of the above three main characteristics are probably not unique to 'trolls', *i.e.* do not represent any particular 'uncivilized' behavior. However, it would be definitely wrong to say that there are no 'trolls' at all in the world of patents: Besides abusive use of the court system or even criminal behavior, claiming of excessive royalty fees and/or bundling valuable patents with 'trash' patents are probably the main characteristics of a '*true* patent troll'.

Apart from these extreme cases, one man's troll may indeed be another man's elf. Therefore, it is rather questionable whether the widely used concept of 'trolls' is actually adequate to describe such kind of behavior. Absent these particular circumstances, one should rather accept[36] that patent rights are more and more transformed into (sometimes publicly marketable) financial products – with the effect that the plaintiff may 'merely' have a financial interest in suing the alleged infringer.

3. Legal Doctrines

3.1 U.S. Doctrines

In *EBay v. MercExchange* the US Supreme Court took a quite radical approach to the common 'troll' theme.

First of all, it is difficult to say whether *MercExchange* actually qualifies as a 'true patent troll' according to the criteria set forth above. In particular, given the high commercial significance of *EBay's 'Buy it Now'* feature, it has to remain an open question whether *MercExchange's* royalty fees have to be considered as 'excessive'.

Assuming that *MercExchange* has to be considered as a 'true troll', the question is whether the Supreme Court provided an appropriate solution for the problems identified above. The Supreme Court held that in *all* patent infringement cases (*i.e.* not limited to 'troll' scenarios!) the 'traditional'[37] four-factor test has to be applied before granting an injunction.[38] According to this test, a plaintiff must demonstrate:

(1) that it has suffered an irreparable injury;
(2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury;

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[36] *See* MCDONOUGH III, *supra* note 21.

[37] The term 'traditional' refers to the fact that this test has been part of equity practise for a long time, *see e.g. Weinberger v. Romero-Barcelo*, 456 U.S. 305, 311-313 (1982); *Amoco Productions Co. v. Gambell*, 480 U.S. 531, 542 (1987). However, as the CAFC decision in *Ebay* has shown, there was no such 'tradition' in patent law, *see EBay Inc. et al. v. MercExchange, L.L.C.*, *supra* note 6.

[38] *EBay Inc. et al. v. MercExchange, L.L.C.*,*supra* note 5.

(3) that, considering the balance of hardships between the plaintiff and the defendant, a remedy in equity is warranted; and
(4) that the public interest would not be disserved by a permanent injunction.

This four-factor test certainly allows handling 'troll' scenarios in a very flexible way: the court may or may not issue an injunction. However, on closer examination, it is questionable whether these 'four factors' actually offer appropriate guidance. Factors (3) and (4) seem to be just the usual triangle of interests which one has to consider in many legal scenarios, *i.e.* the interests of both parties and the public interest. In this context, the 'irreparable injury' (factor 1) and the lack of 'adequate remedies such as monetary damages' (factor 2) seem to be merely two distinct subcategories of the general 'hardships' the plaintiff may be exposed to.

However, with regard to the 'patent troll' scenarios discussed above, factors (1) and (2) actually add a certain emphasis on the question whether the plaintiff can be adequately compensated by monetary damages or whether actually an injunction is the only way to avoid 'irreparable harm'. In essence, this test therefore leads to the question whether the plaintiff has mere financial interests in patent enforcement, or whether he intends to remove a competitor from the market.[39] Factors (1) and (2) (if applied to these scenarios[40]) therefore seem to suggest that the mere financial interest is some kind of 'second class' motivation for patent enforcement, because these factors are at least not an argument supporting an injunction.[41]

Consequently, the four-factor test focuses on a characteristic of the plaintiff, which has been identified above as not being condemnable at all. Therefore, one may say that the Supreme Court merely joined the crowd of populist 'troll hunters', without identifying the real problems actually threatening the patent system (as described above), in particular the problem of 'excessive' damage claims.

3.2 European Doctrines

In Europe, there is no existing case law even remotely comparable to *EBay v. MercExchange*.[42]

However, it is worth looking into the general rules of European competition law, which are – needless to say – not limited to 'troll' scenarios. The respective key provision is Article 82 of the Treaty Establishing the European Community (EC). It

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[39] GOLDEN, 'Patent Trolls' and Patent Remedies, 85 Texas L. Rev. 2112 (2007); SUBRAMANIAN, Different Rules for Different Owners: Does a Non-Competing Patentee have a Right to Exclude? A Study of Post-eBay Cases, CCP Working Paper 07-18 (2007), available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1022057> (as of May 2008).

[40] It should be again noted that the 'four-factor test' was not originally developed to deal with 'patent troll' scenarios.

[41] GOLDEN, *supra* note 39. However, the Supreme Court also made clear that a mere financial interest in patent enforcement does not exclude an injunction *per se*, *see EBay Inc. et al. v. MercExchange, L.L.C.*, *supra* note 5.

[42] As a general remark, the entire 'troll' debate is still so fuzzy so that court decisions specifically addressing this issue are likely to hit the wrong point, just as the U.S. Supreme Court probably did in *EBay*.

prohibits any abuse by an undertaking of a dominant position within the Common Market, in so far as it may affect the trade between Member States; Article 82 subparagraphs (a) to (c) name four distinct examples of such abuse.

Under Article 82 EC, the first main hurdle for any case is the requirement of a 'dominant position' in the relevant market. The Commission defines the relevant market by the respective product market and its geographical scope. The relevant product market 'comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use'.[43] Consequently, the narrower a 'product market' is defined, the more likely Article 82 EC applies, *i.e.* the ability of a patent owner to exploit its rights is restricted by competition law.

The key question is whether a patent portfolio or even a single patent provides 'a dominant position' in the relevant market. In the *Magill* case, the ECJ held, '[S]o far as dominant position is concerned, it is to be remembered at the outset that mere ownership of an intellectual property right cannot confer such a position.'[44] This essentially means that – absent additional circumstances – a patent (portfolio) may only provide a dominant position if the claimed technology happens to be a product (or upstream) market of its own.[45] Such narrow markets are, however, relatively rare.

Under this doctrine, a patent (portfolio) may *e.g.* confer a dominant position, if it covers mandatory features of an industry standard (so-called 'essential patents'), *and* the licensing of the technology of respective standard[46] is an upstream market of its own.[47] It should, however, be noted that the existence of an industry standard[48] does not necessarily mean that the scope of the standard corresponds to a respective upstream technology market.[49] Moreover, it is an open question whether one single patent is actually enough to confer a dominant position if the patent covers only a

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[43] *See* the 'Notice on Relevant Market' issued by the European Commission, Official Journal C 372, 0005-0013 (09/12/1997).

[44] ECJ, April 6, 1995, Joined cases C-241/91 P and C-242/91 P, 1995 ECR I-00743, note 46 – *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd. (ITP) v. Commission of the European Communities.*

[45] ANDERMAN, EC Competition Law and Intellectual Property Rights: The Regulation of Innovation, 168 *et seq.* (2nd ed. 2000).

[46] In short, one could also say that the upstream market is the *access* to the respective technology.

[47] German Federal Supreme Court (Bundesgerichtshof, BGH), July 13, 2004, Case KZR 40/02, BGHZ 160, 67 – *Standard Barrel.*

[48] It should be noted that the relevant court decisions deal with 'formal' industry standards issued by a standard setting organization (SSO); a mere *de facto* standard may not be sufficient to confer a dominant position, *see* Düsseldorf District Court (Landgericht (LG) Düsseldorf), July 5, 2007, Case 4b O 289/06 – *White Light LED II* (not yet published).

[49] Some court decisions propose quite questionable market definitions in this respect. *See* Mannheim District Court (Landgericht (LG) Mannheim), April 20, 2007, Case 7 O 287/02 – *CD-R* (not yet published); Mannheim District Court, August 3, 2007, Case 7 O 222/06 – *mp3* (not yet published).

small portion of a complex standard.[50] This question gets even more complicated if the patent merely covers non-mandatory features of the standard, which have to be used from a commercial point of view in order to practice the standard (commercial essentiality). However, in the *Microsoft* case the CFI recently confirmed that also intellectual property rights relating to a mere *de-facto* standard may provide a dominant position in the relevant market.[51]

If a patent (portfolio) provides a dominant position under the principles above, the first hurdle is taken and the restrictions of Article 82 EC apply. With regard to 'patent troll' scenarios identified above,[52] there are in particular two relevant doctrines in European case law, which will be now further analyzed.

Concerning abusive use of the court system or even criminal behavior, the leading case is the decision of the European Court of First Instance (CFI) *ITT Promedia*[53]. This case deals with the question whether initiating legal proceedings can be characterized as an abuse of a dominant market position – *i.e.* transferred to 'troll' scenarios: whether bringing a claim for patent infringement can violate Article 82 EC.

The Commission held that in principle the bringing of an action, which is the expression of the fundamental right of access to a judge, cannot be characterized as abuse, unless an undertaking in a dominant position brings an action:

(1) which cannot reasonably be considered as an attempt to establish its rights and can therefore only serve to harass the opposite party, and
(2) which is conceived in the framework of a plan whose goal is to eliminate competition.[54]

The CFI agreed with the Commission and clarified that the first criterion is not a question of determining whether the rights which the undertaking concerned was asserting when it brought its action actually existed or whether that action was well founded. Rather it was a question of determining whether such an action was intended to assert what that undertaking could, at that moment, reasonably consider to be its rights.[55]

Referring *inter alia* to the *Promedia* doctrine, the Commission held in its *AstraZeneca* decision[56] that a pattern of misleading representations made by *AstraZeneca* before national patent offices and courts aimed at excluding generic firms from

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[50] Without any further discussion of this question, the Düsseldorf District Court held that 3 percent of all 'essential patents' of an industry standard is enough to confer a dominant position in the respective market, *see* Düsseldorf District Court, February 13, 2007, Case 4a O 124/05 – *GPRS* (not yet published).

[51] CFI September 17, 2007, Case T-201/04, 2007 ECR-II 0000 (not yet officially reported) – *Microsoft.*

[52] For the 'hold up' and 'ambush' scenarios, *see* below.

[53] CFI, July 17, 1998, Case T-111/96, 1998 ECR II-02937 – *ITT Promedia*. *See* also Commission Decision, June 15, 2005, Case COMP/A.37.507/F3, OJ L 332, November 30, 2006, page 24 – *AstraZeneca*.

[54] CFI, *id.* – *ITT Promedia*, note 30.

[55] CFI, *id.* – *ITT Promedia*, note 73.

[56] Commission Decision, *supra* note 53, page 24 – *AstraZeneca*.

competing against AstraZeneca's product LOSEC constitutes an abuse according to Article 82 EC. The case is currently under appeal at the CFI.

It is apparent that the two *Promedia* criteria are rarely fulfilled. However, under exceptional circumstances, abusive or otherwise illegal patent litigations aiming to eliminate competition may indeed fulfill the *Promedia* requirements, provided that the patentee has a dominant market position.[57]

The problem of excessive royalty rates and/or bundling valuable patents with 'trash' patents and/or discriminative licensing conditions[58] is generally discussed under the keyword '*FRAND* license', standing for '*fair, reasonable, and non-discriminatory* license'. The obligation to grant FRAND licenses can be derived from the examples of prohibited abuse of a dominant position set forth in Article 82 lit. (a), (c), and (d) EC.

The oldest European 'FRAND'[59] case is the decision of the European Court of Justice (ECJ) *United Brands*,[60] dealing with the banana import market in the 1970s. In this decision, the ECJ held that *United Brands*' policy of applying dissimilar conditions to equivalent transactions with other trading parties is an abuse of a dominant position. Moreover, the ECJ held that charging an excessive price might violate former Article 86 lit. (a) EC (now Article 82 lit. a EC); a price is to be regarded 'excessive', if it has no reasonable relation to the economic value of the product supplied.

The ECJ confirmed the *United Brands* doctrine in the *Volvo* decision, holding that excessive pricing of automobile spare parts protected by design patents may constitute an abuse of a dominant position.[61]

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[57] However, it should be noted that in some cases competition law might be only a second choice; if the respective Member State provides for reasonably efficient and reliable public prosecution authorities, the latter could be the more appropriate address for a complaint.

[58] These problems need to be differentiated from the situation where the patentee refuses to grant a license at all. The latter case would be usually no longer a 'troll' scenario, as patent *licensing* is the business model of 'trolls'. The leading case dealing with complete refusal of licensing from a competition law perspective is the decision of the ECJ *IMS Health*, *see* ECJ April 29, 2004, Case C-418/01, 2004 ECR I-05039 – *IMS Health*. The strict *IMS Health* doctrine was recently applied in CFI, *supra* note 51 – *Microsoft*.

[59] The acronym FRAND is however not used in the older court decisions.

[60] ECJ, February 14, 1978, Case 27/76, 1978 ECR 00207 – *United Brands*.

[61] ECJ, October 5, 1988, Case 238/87, 1988 ECR 06211 – *Volvo/Veng*. See also the parallel decision ECJ, October 5, 1988, Case 53/87, 1988 ECR 06039 – *Renault*, clarifying that the fact that a car manufacturer sells bodywork components in respect of which protective rights exist for a price higher than that charged for the same components by independent manufacturers does not necessarily constitute an abuse of a dominant position since the proprietor of protective rights in respect of an ornamental design may lawfully call for a return on the amounts which he has invested in order to perfect the protected design .

Based on the *United Brands* doctrine, it is nowadays generally accepted that the patentee has an *obligation* to grant licenses on FRAND terms[62] – at least if he decides to license the patent at all.[63]

The German Federal Supreme Court emphasized in the *Standard Barrel* decision[64] that such obligation (and the corresponding claim for such license) under Article 82 EC does not interfere with the national law on compulsory licensing (Sec. 24 para. 2 (2) German Patent Act). Under German law, a compulsory license requires (and serves) a '*public interest*', in particular technical, economic, social and health care aspects. In contrast, the purpose of the FRAND license obligation is to protect competition in the market, *i.e.* to remove an abuse of a dominant position.

If a patentee does not comply with his obligation to grant FRAND licenses, it is generally accepted[65] that one has a *claim* for such license. Therefore, the key question is whether such a claim can be raised in patent infringement litigation in order to avoid an injunction.

At least under German law, there is a fundamental rule originating from Roman law: *dolo agit, qui petit quod statim redditurus est* (a claim is raised in bad faith, if the claimed subject matter is subject to a counterclaim for immediate return).[66] This rule is nowadays considered as a subcategory of the general *principle of good faith* set forth in Sec. 242 German Civil Code.[67]

Under this rule, it seems to be evident that a patentee enforces his patent in *bad faith* if he is generally willing to grant licenses, and the infringer proposed a concrete and adequate license agreement to the patentee before using the patent (or at least after being addressed by the patentee), which the patentee however rejected.[68] In the aforementioned *Standard Barrel* decision, the German Federal Supreme

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[62] *See e.g.* DIRKSEN, in: LANGEN/BUNTE, Kommentar zum deutschen und europäischen Kartellrecht, vol. 2, Article 82 EC notes 92-109 (10th ed. 2005).

[63] For the case that the patentee refuses to grant licenses at all, *see* the restrictive doctrine of ECJ *supra* note 58 – *IMS Health*, and CFI, *supra* note 51 – *Microsoft*. *See* further CONDE GALLEGO, Die Anwendung des kartellrechtlichen Missbrauchsverbots auf 'unerlässliche' Immaterialgüterrechte im Lichte der IMS Health- und Standard-Spundfass-Urteile, 2006 GRUR Int. 16.

[64] German Federal Supreme Court (Bundesgerichtshof, BGH), *supra* note 47 – *Standard Barrel*.

[65] ECJ, March 27, 1974, Case 127/73, 1974 ECR 313 – *BRT/SABAM*; July 10, 1980, Case 37/79, 1980 ECR 2481, 2500 – *Marty/Estée Lauder*; April 11, 1989, Case 66/86, 1989 ECR 803 – *Ahmed Saeed*; June 1, 1999, Case C-126/97, 1999 ECR I-3055, note 37 – *Eco Swiss/Benneton*; JUNG in: GRABITZ/HILF, Das Recht der Europäischen Union, Article 82 EC note 283 (2007); MESTMÄCKER, Europäisches Wettbewerbsrecht, 576 (1974); DIRKSEN *supra* note 62, Article 82 EC note 209; WIRTZ/HOLZHÄUSER, Die kartellrechtliche Zwangslizenz, 2004 WRP 683, 691.

[66] The original wording (authored by IULIUS PAULUS) in the *Digest* is: *dolo facit, qui petit quod redditurus est*, see D.44, 4, 8.

[67] *See* HEINRICHS in: PALANDT, Kommentar zum bürgerlichen Gesetzbuch, Sec. 242 German Civil Code, note 52 (67th ed. 2008). Sec. 242 literally states that all claims have to be *fulfilled* in good faith; however, the good faith rule does not only apply to the debtor, but also to the creditor (claimant).

[68] KÜHNEN, Der kartellrechtliche Zwangslizenzeinwand und seine Berücksichtigung im Patentverletzungsprozess, in: Festschrift für Tilmann, 513 (2003); WIRTZ/HOLZHÄUSER, *supra* note 65, 693.

Court made a statement explicitly limited to a claim for *damages*. The Court held that the patentee might be barred from seeking *damages*, if the infringer has requested a license from the patentee beforehand.[69] However, referring to the *Standard Barrel* decision, the Düsseldorf District Court repeatedly indicated that the Court would also deny an *injunction* based on the 'FRAND exception'.[70] Likewise, the Karlsruhe Court of Appeals expressed that the Court is inclined to apply this exception in *injunction* cases.[71]

In contrast, the patentee seems to enforce his patent in *good faith*, if the infringer never requested a license at all. Between these two extreme scenarios are however numerous nuances in which the case is much less clear-cut, and there are just a few court decisions that merely give some guidance.

The Karlsruhe Court held[72] that the terms of the licensing agreement offered by the infringer must be so favorable for the patentee, that further concessions to the patentee would no longer be adequate. This decision is currently under appeal at the Federal Supreme Court, and it seems to be unlikely that this rather strict and unrealistic rule will be upheld, as it is practically impossible to determine *ex ante* whether licensing terms are 'as favorable as possible'.

The Düsseldorf Court emphasizes[73] that the infringer has to make a concrete, acceptable offer to the patentee, and that the terms of the offer have to be evaluated *objectively*.

In summary, the FRAND exception is a powerful defense, in particular in 'essential patent' scenarios. However, it should be noted that absent further circumstances, such as *e.g.* dominance, an injunction will not be denied, even if the patentee asks for exorbitant licensing fees or bundles a small number of valuable patents with a 'trash' patent portfolio. This shows a fundamental paradigm under European law: It is left to the *market* to regulate such excessive claims, as long as the market itself is functioning. In other words, if the infringer considers the licensing conditions as unacceptable, he eventually has to retreat from using the respective technology. In addition, if the market does not accept the licensing terms of the patentee, the latter will have to reconsider his approach. However, if the market is no longer

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[69] German Federal Supreme Court (Bundesgerichtshof, BGH), *supra* note 47 – *Standard Barrel*.

[70] Düsseldorf District Court (Landgericht (LG) Düsseldorf), November 30, 2006, Case 4b O 508/05, 7 InstGE 70 – *Video Signal Encoding I*; November 30, 2006, Case 4b O 346/05, 2007 Gewerblicher Rechtsschutz und Urheberrecht, Rechtssprechungs-Report (GRUR-RR) 181 – *Video Signal Encoding II*; *supra* note 50 – *GPRS*; April 17, 2007, Case 4b O 287/06 – *White Light LED I* (not published); *supra* note 48 – *White Light LED II* (not published).

[71] Karlsruhe Court of Appeals (Oberlandesgericht (OLG) Karlsruhe), December 13, 2006, Case 6 U 174/02, 2007 GRUR-RR 177 – *Orange Book Standard*. However, the Mannheim District Court (which is below the Karlsruhe Court of Appeals) seems not to follow the Karlsruhe Court of Appeals, *see* Mannheim District Court (Landgericht (LG) Mannheim), *supra* note 49 – *CD-R*; *supra* note 49 – *mp3*.

[72] Karlsruhe Court of Appeals (Oberlandesgericht (OLG) Karlsruhe), *id.* – *Orange Book Standard.*

[73] Düsseldorf District Court (Landgericht (LG) Düsseldorf), *supra* note 70 – *Video Signal Encoding I*; *supra* note 70 – *Video Signal Encoding II.*

able to self-regulate, like in 'essential patent' scenarios, the FRAND defense comes into play.

Therefore, under European/German law, the fundamental concept of *exclusive rights* is not questioned. Absent additional circumstances, patent infringement is sanctioned by an injunction, *i.e.* there are no '*patents without injunctions*'. Competition law merely corrects the effects of patents where the market is no longer functioning properly and therefore unable to fulfill its role as corrective means.[74]

The case law cited above is of course not yet settled, and there are many open questions, in particular the method applied to determine FRAND licensing terms. However, it seems to be already clear that the FRAND exception has become an inherent part of IP law, being a powerful defense against 'trolls'.

3.3 TRIPs

One may wonder whether the above restrictions, in particular the four-factor test of the *EBay* decision, are still in line with the obligation set forth in Article 28 TRIPs ('A patent shall confer on its owner the following exclusive rights: …'). In this respect, the key provisions are Article 30 and 31 TRIPs.

Article 30 TRIPs states that the Member States may provide under certain circumstances '*limited exceptions*' to the exclusive rights conferred by a patent. The '*limited exceptions*' addressed by Article 30 are the common exceptions found in almost all patent laws worldwide,[75] *e.g.* exceptions for private or experimental use (see *e.g.* Sec. 11 of the German Patent Act – restricting the effect of patents to the area of 'commercial' activity), prior use exceptions, '*Bolar*' exceptions,[76] or parallel import exceptions.

Article 31 TRIPs, in contrast, addresses an exception, which can be broadly described as '*compulsory license*'. The rather confusing structure of Article 31 TRIPs somehow hides that there are three major cases addressed by this provision: Subparagraphs (a)-(j) basically concern the 'normal' compulsory license. Subparagraph (k) allows exceptions, which remedy 'a practice determined to be anti-competitive'; in other words, Subparagraph (k) recognizes that there is a need for an interaction between patent law and unfair competition/antitrust law. Subparagraph (l) finally deals with compulsory licenses in relation to exploitation of dependent patents.

The European 'FRAND exception' outlined above falls in the category of Article 31 (k) TRIPs. The key elements of this exception are that each case has to be considered on its individual merits (Article 31 [a] TRIPs), an 'adequate remuneration' has to be paid for the use of the patent (Article 31 [h] TRIPs), and any decision

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[74] HEINEMANN, Gefährdung von Rechten des geistigen Eigentums durch Kartellrecht? – Der Fall 'Microsoft' und die Rechtsprechung des EuGH, 2006 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 705.

[75] REYES-KNOCHE, in: BUSCHE/STOLL, TRIPs – Internationales und europäisches Recht des geistigen Eigentums – Kommentar, Article 30, note 3 (1st ed. 2007).

[76] *See Roche Products Inc. vs. Bolar Pharmaceutical Co.*, 733 F2d 858 (1984).

to deny an injunction is subject to judicial review (Article 31 [i] TRIPs). All these requirements are clearly fulfilled, as the FRAND exception has to be raised in court proceedings (consideration on its individual merits), a FRAND is normally[77] not a royalty-free license (adequate remuneration), and 'judicial review' is of course possible.

The *Promedia* doctrine is unlikely to interfere with Articles 29, 31 TRIPs, as the possible sanctions imposed in case of abusive litigation normally do not comprise a compulsory license.

The U.S. *four-factor test* has a much broader applicability than the quite limited European 'FRAND exception'. In essence, the four-factor test is also a kind of compulsory license doctrine, because it potentially restricts the rights conferred to the patentee to a monetary compensation. Therefore, the question is whether this test can be regarded as an attempt 'to remedy a practice determined to be anti-competitive' according to Article 31 (k) TRIPs. The answer certainly depends on the specific aspects taken into consideration in this test. However, as explained above, the test somehow focuses on the question whether the patentee has a 'mere' financial interest in enforcing his patent. This aspect has, however, been identified above as not being 'abusive' at all, so that Article 31 (k) TRIPs is potentially not applicable. This would mean that the additional requirements set forth in Article 31 (b) and (f) TRIPs have to be respected, *i.e.* the infringer must have made efforts 'for a reasonable period of time' to obtain a license from the patentee 'on reasonable commercial terms and conditions', and the license must limited 'predominantly for the supply of the domestic market'. Under these requirements, it seems that the four-factor test may result in a denial of an injunction only in very exceptional cases – any broader application of this doctrine is likely to violate Articles 28, 31 TRIPs.

4. 'Patent Hold-up', 'Patent Ambush'

As mentioned at the beginning, the discussion whether an injunction may be denied despite finding patent infringement not only relates to 'patent troll' scenarios, but also to 'patent hold-up' and 'patent ambush'.

4.1 'Patent Hold-up'

In short terms, 'patent hold-up' generally refers to the situation that the patent covers mandatory technical features of an industry standard, so that the standard cannot be practiced without using the patent ('essential patent'), and the patentee asks for excessive royalty rates, so that the industry standard is commercially blocked.

From a European perspective, this scenario is again a case of Article 82 EC, *i.e.* the 'FRAND exception' may be applied. However, the so-called Intellectual Prop-

[77] If the patentee however grants royalty-free licenses to the existing licensees, a FRAND license might be also royalty-free, see German Federal Supreme Court (Bundesgerichtshof, BGH), *supra* note 47 – *Standard Barrel*.

erty Rights Policies (IPR policies) of the various standard setting organizations (SSOs) are equally important here. If a technology developer wants to participate in the standardization process of an SSO, it normally needs to become a member of the respective SSO. By becoming a member, the technology developer has the chance to influence the content of a standard to cover a developer's inventions, so that it may eventually own an 'essential patent'.

The SSOs generally require their members to accept IPR policies as binding rules as part of the membership terms.[78] These IPR policies *inter alia* address two basic issues: first, the rules for disclosing patents or pending applications during the consultations of the standards, *i.e. before* the respective technology gets 'locked-in'; second, the rules for granting licenses of relevant patents once the standard is concluded.

Among the various existing IPR policies,[79] probably the best-known is issued by the European Telecommunications Standards Institute (ETSI).[80] It stipulates that ETSI members shall use '*reasonable endeavors*' to inform ETSI of essential IPRs '*in a timely fashion*', in particular if the member submits a technical proposal for a standard (clause 4.1). As regard the licensing issue, the key provision states that the Director-General of ETSI shall *request* the owner to give an undertaking that it is prepared to grant irrevocable licenses on '*fair, reasonable and non-discriminatory terms and conditions*' (clause 6.1).[81] If the patentee refuses or delays to give such an undertaking, the general approach is to remove the claimed technology from the standard, if possible (clause 8). This approach is also taken, if the standard has already been published. It is, however, relatively unlikely that the ETSI members agree to modify a standard once it is in use. In this case, the General Assembly of ETSI shall request the European Commission to see what further action may be appropriate, including non-recognition of the standard in question (clause 8.2 [v]).

It should be noted that the above-mentioned undertaking under the ETSI IPR policy does not contain an exact definition of the requested royalty rate, as the IPR

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[78] These membership terms (or in general: standardization agreements), in particular the respective IPR policies, are subject of the antitrust rules of Article 81 EC. For further details, *see* Sec. 6 of the Commission Notice Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements (2001/C 3/02), as well as the Commission Notice Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements (2004/C 101/02).

[79] The European Commission issued recommendations for SSOs on the ways to deal with intellectual property rights relating to standards in 1992, *see* Commission Communication on IPRs and Standardization, COM 92/445, October 22, 1992. These recommendations were widely adopted, but the detailed terms still vary quite significantly.

[80] Available at <http://www.etsi.org/WebSite/document/Legal/ETSI_IPR-Policy.PDF> (as of May 2008).

[81] For suggestions how to calculate such royalty rates *see* SWANSON/BAUMOL, Reasonable and Nondiscriminatory (RAND) Royalties, Standard Selection, and Control of Market Power, 73 Antitrust L. J. 1, (2005).

policy does not require such *ex ante* commitment.[82] Therefore, it cannot be excluded that in practice a patentee still asks for excessive royalty fees – claiming these terms and conditions are FRAND – despite the fact that he signed the ETSI licensing undertaking. There is almost no case law available yet dealing with this scenario. However, the Düsseldorf District Court recently held that such undertaking – similar to Article 82 EC – may bar the infringer from seeking an injunction (Sec. 242 German Civil Code, see above).[83]

While the ETSI IPR policy essentially relies on a self-regulation within the SSO and the market, China may take a much more authoritative approach in the future. The Chinese Electronic Standardization Institute (CESI) published an 'IT Standard Drafting Organizations IPR Policy *Template*' in late 2006, which requires the technology developers participating in a standardization project to select from three default licensing options: (1) royalty-free license; (2) participation in a unitary patent pool for the respective standard; (3) license under reasonable and non-discriminatory terms (see Article 12). All licenses are worldwide licenses (Article 17). The SSO should generally give preference to those technical contributions, which are not subject to patent protection, or which are at least subject to a royalty-free license[84] (Article 9).

If this IPR policy template is actually implemented by Chinese SSOs in the future, it is likely to affect the situation also outside China, due to the worldwide effect of the granted licenses. Technology developers will be then faced with two basic options: They either actively participate in standardization projects in China, and thereby essentially give up the exclusivity of their IPR, or they risk that their respective innovations do not become part of a standard[85] in one of the largest economies worldwide,[86] but save their IPR.

Even more restrictive than the draft Chinese IPR policy template, some scholars suggest general exceptions for certain scenarios (*e.g.* an '*exceptio standartis*'[87]).

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[82] This is a very controversial issue. Most members of SSOs object an obligation to make *ex ante* royalty rate commitments. However, some scholars regard such obligation as the only workable solution of the hold-up problem, *see e.g.* LEMLEY, Ten things to do about patent holdup of standard (and one not to), 48 B. C. L. Rev. 149 (2007). ETSI explicitly encourages its members to make voluntary *ex ante* licensing commitments, see the ETSI IPR Guide of November 22, 2006 stating: 'Without prejudice to ETSI IPR Policy and other sections of this Guide, voluntary, unilateral, public, ex ante disclosures of licensing terms by licensors of Essential IPRs are not prohibited under ETSI Directives. Licensing terms from such disclosures may, in some circumstances, improve transparency for individual Members in considering technologies for inclusion in standards and technical specifications'.

[83] Düsseldorf District Court (Landgericht (LG) Düsseldorf), *supra* note 50 – *GPRS*.

[84] The 'ranking' of the license types is: (1) royalty free, (2) patent pool, (3) RAND, *see* Article 13.

[85] From a consumer's point of view, the standard may therefore cover second-tier technology. *See* also LEMLEY/MCGOWAN, Legal Implications of Network Economic Effects, 86 Cal. L. Rev. 523 (1998).

[86] It should be noted that a technology, which is widely use in China, may eventually become so inexpensive that it can also enter the European 'home' market.

[87] KOELMAN, An Exceptio Standartis: Do We Need an IP Exemption for Standards?, 37 IIC 823 (2006).

Such a general exception would probably no longer meet the requirements of Article 31 TRIPs (in particular: individual decisions on the merits, adequate remuneration, and *ex ante* administrative/judicial review). Consequently, Article 30 TRIPs would be the relevant provision to address. Although the requirements of this provision are fairly vague[88] and therefore may (or may not!) cover such a new exception, such statutory reform would quite likely cause a heated debate on an international level, because the scenarios addressed in this paper are by far not the only ones where certain interest groups consider the effects of patent protection as inappropriate.

4.2 'Patent Ambush'

'Patent ambush' means, in short terms, that the patentee takes part in a standardization project of an SSO, but conceals its relevant patents/application, despite the disclosure obligation set forth in the respective IPR policy. In other words, the patentee abuses its membership in an SSO to monopolize the respective technology market.

The most famous 'patent ambush' case is the *Rambus* case.[89] *Rambus* developed a special architecture for so-called dynamic random access memories (DRAM) and filed a patent application on this invention in 1990 (this application was later split into several divisional applications).

In 1992, *Rambus* became a member of an SSO called Joint Electronic Device Engineering Council (JEDEC). At this time, JEDEC was in the process of defining a standard related to DRAMs.

The IPR policy of JEDEC required its members to disclose relevant patents; the exact scope of this disclosure obligation is, however, unclear.

While participating in JEDEC's standardization proceedings, *Rambus* concealed their pending patent applications, even after they amended their claims to cover the DRAM technology as defined in the draft standard, using their knowledge as a JEDEC member.

After the standard had been published and adopted by the industry, *Rambus* revealed its patents and started to enforce them asking for 'exorbitant' royalty rates.

The FTC found that *Rambus* possesses monopoly power in the relevant semiconductor market. In addition, the FTC found that if *Rambus* had fully disclosed its intellectual property, JEDEC either would have excluded *Rambus*' patented technologies from the standard, *or* would have demanded RAND assurances with an opportunity for *ex ante* licensing negotiations (it was obviously not possible to further investigate the case).

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[88] For the requirements of Article 30, *see* WTO Document WT/DS114/R – *Canada – Patent Protection of Pharmaceutical Products*.

[89] U.S. Federal Trade Commission, *In the Matter of Rambus, Inc*., Docket No. 9302 (rendered on February 2, 2007 and re-amended on April 27, 2007). *Rambus* appealed the FTC decision to the Court of Appeals for the District of Columbia District. The Court of Appeals set aside the Commission's order and remanded for further proceedings, *see Rambus, Inc. v. Federal Trade Commission*, 2008 U.S. App. LEXIS 8662 (D.C. Cir. 2008).

The FTC held that *both* factual scenarios would constitute an 'exclusionary' conduct under Sec. 2 of the Sherman Act. The FTC therefore ordered *inter alia* that *Rambus* shall cease to collect royalty fees for its patents that are in excess of a precisely defined maximum royalty rate, and has to offer to all interested persons a nonexclusive license according to these terms.

Assuming (without deciding) that *Rambus*' more complete disclosure would have caused JEDEC to adopt a different (open, non-proprietary) standard, the Court of Appeals[90] held that this failure to disclose harmed competition and would support a monopolization claim.

However, the Court further held that if *Rambus*' conduct merely enabled it to avoid JEDEC's obtaining assurances from Rambus of RAND licensing terms, such conduct would not harm competition, absent further circumstances. According to the Court, an otherwise lawful monopolist's use of deception simply to obtain higher prices normally has no particular tendency to exclude rivals and thus to diminish competition. Had JEDEC limited *Rambus* to RAND royalties, the Court would expect less competition from alternative technologies, not more; high prices and constrained output tend to attract competitors and does not tend to repel them.

Consequently, the Court held that at least one of the above two alternative factual scenarios does not constitute an 'exclusionary' conduct, and therefore vacated and remanded the decision.

There is no European case law comparable to the *Rambus* decision yet; however, the European Commission already sent a Statement of Objections (SO) to *Rambus* on July 30, 2007.[91] The SO outlines the Commission's preliminary view that *Rambus* has infringed Article 82 EC by claiming unreasonable royalties subsequent to a 'patent ambush'. The SO concludes that the appropriate remedy to such an abuse would be that *Rambus* charge a reasonable and non-discriminatory royalty rate, the precise amount of which should be determined having regard to all the circumstances of the case.[92]

5. Conclusions

The above analysis has shown that the 'patent troll' debate is very fuzzy, and many of the alleged characteristics of 'trolls' are probably not unique to them. However, despite all the spurious arguments there are definitely a number of problems within the patent system commonly associated with the term 'troll'. Besides abusive use of the court system or even criminal behavior, claiming of excessive royalty fees and/or bundling valuable patents with 'trash' patents are probably the main characteristics of a '*true* patent troll'.

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[90] *Rambus, Inc. v. Federal Trade Commission*, *supra* note 89.

[91] *See* European Commission, MEMO/07/330 of August 23, 2007.

[92] But *see* ULRICH, Patente, Wettbewerb und technische Normen: Rechts- und ordnungspolitische Fragestellungen, 2007 GRUR 817, 825 (holding that '*abuse*' according to Article 82 EC does not cover 'patent ambush' scenarios).

Absent these particular circumstances, one should however refrain from using the term 'troll', in particular if it merely refers to the fact that the plaintiff 'only' has a financial interest in suing the alleged infringer. It should be rather accepted that patent rights are increasingly transformed into financial products, due to the growing need for venture capital and respective financial products in a knowledge-based society, which is more and more 'manufacturing' knowledge instead of tangible goods.

Compared to the 'troll' debate, the discussion related to 'patent hold-ups' and 'ambushes' is much more focused and highlights potential misuse of the patent system, requiring further detailed analysis.

The general European legal approach to 'trolls' 'hold-ups' and 'ambushes' does not question the fundamental concept of *exclusive rights*. The solution is rather based on doctrines outside patent law, namely competition law. If the *market* is no longer able to regulate such abusive use of the patent system,[93] because the patentee has gained a dominant market position, the exclusive effect of the respective patent(s) needs to be restricted as much as necessary, but also as little as possible, to re-establish a functioning market. However, it has to be noted that the respective case law is far from settled and many detailed questions associated with these problems are not yet sufficiently solved, although its basic approach seems to be solid. In addition, it is yet an open question whether the restrictive approach of competition law is actually effective enough to solve the problem of the 'troll' scenarios identified above – these problems need to be carefully monitored in the future.

Besides the intervention by courts and competition authorities, IPR policies issued by SSOs gained a very important role in preventing and regulating conflicts arising from patent protection within industry standards. However, on an international level, there is still a plethora of diverging IPR policies, and recent developments in China raise concerns that the instrument of IPR policies may also turn into an anti-patent approach.

As regards the 'patent ambush' scenario, the U.S. case law is currently leading the debate. The *Rambus* decision is a landmark, even though the Court of Appeals dismissed major parts of the reasoning of the FTC decision. It seems to be desirable that courts soon develop a harmonized international standard of conduct for standardization proceedings. The original FTC decision – despite all its deficits – may give important guidance here.

However, in regards to the 'patent troll' debate, the *EBay* decision of the U.S. Supreme Court seriously questions the fundamental concept of *exclusive rights* in patent law,[94] and even raises concerns under the TRIPs obligations. This decision suggests that a 'mere' financial interest may be regarded as an inferior motive of

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[93] For a detailed analysis of the economics of 'hold-up', *see* FARREL/HAYES/SHAPIRO/SULLIVAN, Standard Setting, Patents, and Hold-Ups, 74 Antitrust L. J. 603 (2007).

[94] ALLISON/DUNN/MANN, Software Patents, Incumbents, and Entry, 85 Tex. L. Rev. 1579 (2007), correctly remind in this context that policymakers should be sure that any reform they adopt do not accidentally elevate the temporary interests of firms using one strategy over those firms using another.

patent enforcement, essentially creating a two-class society of IP owners.[95] It is clear – at least from a European perspective – that cases like *EBay* can be much more appropriately handled by correcting possibly overreaching effects of the patent system by means of competition law.[96] Instead, *EBay* seems to be the first case suggesting that there are *patents without injunctions*.

[95] GOLDEN, *supra* note 39.

[96] But *see* LEMLEY, *supra* note 82. He thinks that the solution to the hold-up problem has to be found in the *EBay* doctrine, combined with more rigid IPR policies. Arguing in the same direction: HEMPHILL, Technology Standards Development, Patent Ambush, and US Antitrust Policy, 27 Tech. in Soc. 55 (2005); LEA/HALL, Standards and intellectual property rights: an economic and legal perspective, 16 Information Economics and Policy 67 (2004); STERN, Rambus v. Infineon: The Superior Aptness of Common-Law Remedies than Antitrust for Standardisation Skullduggery, 2001 EIPR 495.

(No) Freedom to Copy? Protection of Technical Features under Unfair Competition Law

Annette Kur

1. Introduction

Innovation is triggered by patents – at least that's the conventional wisdom on which the patent system (more generally, the system of technical innovation rights) is founded. No attempt shall be made here to venture into the recurrent battles of faith over the validity of that statement. Instead, the starting point for the following lines is the question to what extent are innovative, technical features generally excluded from protection under legal regimes other than patent or utility model law.

The topic is frequently addressed under trademark law, where it has resulted in the inclusion of specific provisions into the European Trademark Directive (89/104/EEC, TMD) and the Community Trade Mark Regulation (40/94, CTMR).[1] Instead of dealing with European trademark law, however, this contribution will limit itself to examining whether and to what extent *national unfair competition law* offers a basis for protection of technical features. The choice of this topic is a tribute to the fact that in the early days of Joseph Straus' academic career, unfair competition was a focus of his scientific interest.[2] In recalling the early beginnings of an extended and immensely fruitful period of academic writing, this contribution is meant to commemorate the many years both Joseph Straus and the author have spent in the physical and spiritual realms of the Max Planck Institute in Munich.

2. Imitation of Shapes Under Unfair Competition Law

2.1 General Principles of German Unfair Competition Law

In contrast to many other areas of law, the law applying to acts of unfair competition between commercial market actors has not been harmonized in the European

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[1] TMD Article 3(1)(e); CTMR Article 8 (1) (e). In addition to technical shapes, the provisions also preclude from protection shapes that result from the nature of the goods, or that give substantial value to the goods. For an interpretation of Article 3 (1) (2) with regard to technical shapes *see* ECJ, June 18, 2002, Case C-299/99 – *Philips/Remington*, [2002] ECR I-5475

[2] STRAUS, Das Wettbewerbsrecht in Jugoslawien. Eine Entwicklungsgeschichtliche und systematische Darstellung mit Hinweisen auf das deutsche Recht. Schriftenreihe zum gewerblichen Rechtsschutz, Max-Planck-Institut für ausländisches und internationales Patent-, Urheber- und Wettbewerbsrecht, vol. 19, (1970).

Union.[3] As a result, the misappropriation of commercially valuable achievements as a form of unfair business practice is typically subject only to national law and jurisprudence.

German regulations relating to commercial misappropriation were originally established in Section 1 of the 1906 Act against Unfair Competition (Gesetz gegen Unlauteren Wettbewerb, UWG), the so-called 'general clause' of competition law. In 2004, the Bundestag revised the UWG to enhance the transparency and foreseeability of the legal assessment under the general clause.[4] The new UWG did not substantively change the law, but rather explicitly codified the rich body of case law that had been developed under the general clause. Specific categories of competitive torts, long-recognized in jurisprudence, were enumerated in a non-exclusive manner in Section 4 of the new UWG. Regarding in particular the tort of imitation, Sec. 4(9) UWG states that it is unfair to offer imitations of the goods or services offered by a competitor, if this: (a) amounts to an avoidable deception of consumers about commercial origin; (b) takes unfair advantage of, or jeopardizes, the reputation enjoyed by those goods or services; or (c) profits from knowledge or data that have been acquired in an objectionable manner.[5]

The relationship of Sec. 4(9) UWG with intellectual property protection is a much-debated topic in German literature.[6] The most restrictive view holds that

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[3] The 'Unfair Commercial Practices Directive' (Directive 2005/29/EC of the European Parliament and of the Council of May 11, 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council, OJ L 149/22–39 of 11.6.2005, 'UCPD') is only meant to cover business to consumer (B2C) actions and does not deal with intra-business torts (B2B). It is an open question, however, whether these two areas can actually be kept separate, or whether harmonization of B2C issues will necessarily also impact B2B relations.

[4] For background and contents of the law revision, *see* SOSNITZA, German Law of Unfair Competition: Toward Liberal Standards, 36 IIC 525-542 (2005); HENNING-BODEWIG, A New Act Against Unfair Competition in Germany, 36 IIC 421-432 (2005).

[5] The modalities mentioned under (c) are closely related to protection of trade secrets (*see* also Sec. 17, 18 UWG, where criminal sanctions are imposed for violation of trade secrets) and do not play a major role in the topic considered here.

[6] *See, e.g.,* SAMBUC, Der UWG-Nachahmungsschutz, 1996; from the numerous articles that have been written on the subject *see inter alia* (in chronological sequence) KUR, Der wettbewerbliche Leistungsschutz Gedanken zum wettbewerbsrechtlichen Schutz von Formgebungen, bekannten Marken und 'Characters', Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 1990, 1; MÜLLER-LAUBE, Wettbewerbsrechtlicher Schutz gegen Nachahmung und Nachbildung gewerblicher Erzeugnisse, 156 Zeitschrift für das gesamte Handelsrecht und Wirtschaftsrecht (ZHR) 480 (1992); OHLY, Die Europäisierung des Designrechts, 2004 Zeitschrift für Europäisches Privatrecht (ZEuP) 296; FEZER, Modernisierung des deutschen Rechts gegen den unlauteren Wettbewerb auf der Grundlage einer Europäisierung des Wettbewerbsrechts, 2001 Wettbewerb in Recht und Praxis (WRP) 989. The topic has attracted renewed interest in the aftermath of the law revision of 2004. This is best illustrated by the fact that no less than seven contributions are dedicated to that field in the volume of writings in honor of E. Ullmann, former president of the First Senate of the German Supreme Federal Court (STEINBECK, 409; HILTY, 643; KÖRNER, 701; KUR, 717; LUBBERGER, 737; MÜNKER, 781; OHLY, 795), in: AHRENS (ed), Festschrift für Eike Ullman (2006).

intellectual property law supersedes unfair competition law such that protection based on unfair competition is unavailable where intellectual property protection has lapsed or must be denied for other reasons.[7] Alternatively, some scholars contend that both forms of protection are available as both intellectual property and unfair competition law should be considered equal to and fully independent from the other.[8] Still others promote a middle approach such that when protection under unfair competition law is claimed for an achievement that was never or is no longer protected by intellectual property law, it must be determined in each individual case whether the specific aspects that could render the imitation unfair coincide with elements that form part of the evaluation under intellectual property law. If so, the result under intellectual property law will prevail.[9]

Except in specific instances where the German Federal Supreme Court (Bundesgerichtshof, BGH) has developed a theory of supremacy ('Vorrangtheorie') of the regulations in the Trademark Act (MarkenG),[10] German courts typically emphasize the systematic differences and independence of intellectual property and unfair competition law. As a result, each legal regime is generally interpreted and applied under its own terms, without the evaluation under one regime directly impacting legal analysis under the other. Absent the exclusive right provided by intellectual property law, however, courts typically recognize that unfair competition law must respect the general rule that achievements conferring competitive advantage should in principle be free for everyone to enjoy. Hence, decisions addressing the issue usually start by reiterating that 'imitation as such' is permissible and can only be enjoined if rendered unfair by certain aggravating circumstances.[11] As a minimum condition for those circumstances to be found, courts regularly require that the copied item possesses 'competitive individuality' ('wettbewerbliche Eigenart'), which can be described as a combination of 'individual character' (similar to that required under design legislation) with some (usually modest) degree of market recognition.[12]

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[7] The 'strict approach' is promoted in particular with regard to technical innovations, *see* EMMERICH, Unlauterer Wettbewerb 181 (7th ed. 2004).

[8] *E.g.,* FEZER, *supra* note 6, at 1007; LUBBERGER, FS Ullmann, 745 *et seq*.

[9] OHLY, FS Ullmann, 795, 807 *et seq.* and in 2007 GRUR 731; *see also* KUR, Ansätze zur Harmonisierung des Lauterkeitsrechts im Bereich des wettbewerblichen Leistungsschutzes, 1998 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 771, 775.

[10] German Federal Supreme Court (Bundesgerichtshof, BGH), I ZR 268 of April 30, 1998, 1999 GRUR 161, 162 – *MACDog*.

[11] German case law addressing the issue is abundant. For an overview *see* SAMBUC, in HARTE-BAVENDAMM/HENNING-BODEWIG (eds.), UWG, § 4 Nr. 9 (2004); KÖHLER, in HEFERMEHL/KÖHLER/BORNKAMM (eds.), UWG § 4 Nr. 9 (24th ed. 2006); PIPER, in PIPER/OHLY (eds.), UWG § 4 Nr. 9 (4th ed. 2006).

[12] It is typical for competitive individuality as well as for the assessment of unlawful imitation under unfair competition law as a whole, that the different elements operate in a mutually complementary manner, *i.e.* a relatively high level of aesthetic or distinctive character will outweigh a minimal degree of public awareness, and vice versa.

2.2 Imitation of Functional Elements

Although the imitation of functional elements which constitute a product's shape is generally permissible under unfair competition law, German courts have enjoined imitation of these elements when they contribute to the product's competitive individuality. That is, the copying of a product's technical features may be prohibited if these features are perceived by the public and establish a link in the eyes of consumers between the product and its commercial origin.[13] This is especially true where a competitor has chosen exactly the same technical features despite a variety of solutions which would allow one to achieve the same technical result.[14] However, when the use of a functional feature is *necessary* due to technical reasons, courts generally endorse the view that unfair competition law will not enjoin imitation by a competitor.[15] Additionally, the BGH has sometimes applied a slightly more generous formulation than the technical necessity standard in holding that imitation may be permissible where a reasonable person who takes account of the available state of the art as well as of the product's selling capacity would consider it technically appropriate ('technisch angemessen') to adopt certain functional features of competing products.[16] Nonetheless, the Court has stressed that this does not justify wholesale copying of products where there exists sufficient opportunity for competitors to distinguish themselves at least partly from the various elements that in their entirety give the imitated product its characteristic appearance.[17]

As a matter of principle, these guidelines apply irrespective of whether the product or element that has been copied was formerly protected by a patent. Nevertheless, if the copying of external features of a product was originally prohibited by virtue of a patent, this may furnish a strong indication of the indispensability of that feature for obtaining a technical result. Thus, protection for previously-patented

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[13] German Federal Supreme Court (Bundesgerichtshof, BGH), I ZR 240/93 of December 14, 1995, 1996 GRUR 210, 211 – *Vakuumpumpen*; I ZR 203/96 of January 14, 1999, 1999 GRUR 751, 752 – *Güllepumpen*; I ZR 40/99 of July 12, 2001, 2002 GRUR 86, 89 – *Laubhefter*.

[14] German Federal Supreme Court (Bundesgerichtshof, BGH) I ZR 48/79 of January 23, 1981, 1981 GRUR 517, 519 – *Rollhocker*: '…the first consideration is whether, even though the elements are technically determined, they are arbitrarily selectable in spite of their technical function, or whether they are essential for technical reasons.'

[15] German Federal Supreme Court (Bundesgerichtshof, BGH), I ZR 66/66 of May 3, 1068, 1968 GRUR 591, 592 – *Pulverbehälter*; 1981 GRUR 517, 519 – *Rollhocker*; translated in 23 IIC 781 (1982) (further references to *Rollhocker* relate to the translation in IIC). This is practically the same standard as in trademark law, which also excludes protection of functional shapes (only) where they are necessary to obtain a technical result.

[16] German Federal Supreme Court (Bundesgerichtshof, BGH), 2002 GRUR 86 – *Laubhefter*.

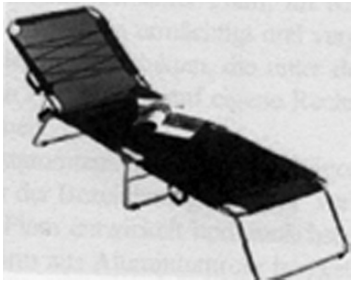
[17] *See* German Federal Supreme Court (Bundesgerichtshof, BGH) – *Rollhocker*: 'Even if this were the case in regard to each of the individual elements (*i.e.*, if they were all found to be technically determined, A.K.), the Court should have considered further whether it would be proper to deny unfair competition protection in those cases where a plurality of interchangeable form elements are identically copied as to particulars of the competitive product.' *Id.*, at 786.

shapes is less likely to occur under unfair competition law than for features without a 'patent background.'[18]

2.3 A Practical Example: The 'Deck Chair' Decision

In order to better illustrate the protection of functional product features under unfair competition law, a recent case decided by the BGH shall be discussed in some detail. In *Gartenliege*,[19] a reclining deck chair produced by the plaintiff had been delivered *inter alia* to the defendant who sold it in large quantities under the defendant's own trademark. The defendant, a well-known producer of coffee and operator of coffee shops, regularly offered in its shops a variety of non-food products. After the defendant sold all of the deck chairs produced by the plaintiff, and the defendant's attempts to renew the supply contract failed, the defendant commissioned another manufacturer to produce nearly exact copies of the deck chairs made by the plaintiff. The plaintiff subsequently initiated an unfair competition action.

Plaintiff's deck chair



Defendant's deck chair

The court of first instance granted the plaintiff's request for an injunction but was reversed by the appeal court. The appeal court determined that although the plaintiff's deck chair contained features sufficient to establish individual character, the plaintiff allowed the deck chairs to be distributed by a number of different retailers (including the defendant) who each affixed their own trademark on the product without reference to the plaintiff as the original producer. The appeal court concluded that competitive individuality could not be established because the plaintiff did not manifest his intent to be identified as the commercial origin of the goods.

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[18] *See, e.g.,* German Federal Supreme Court (Bundesgerichtshof, BGH), I ZR 50/88 of September 22, 1990, 1990 GRUR 528 – *Rollen-Clips.* One prominent exemption from that rule concerned the LEGO building block that was protected in Germany (like in many other European countries) on the basis of unfair competition long after the original patent had expired; German Federal Supreme Court (Bundesgerichtshof, BGH), Ib ZR 37/62 of November 6, 1963, 1964 GRUR 621– *Klemmbausteine I*; I ZR 163/90 of May 7, 1992, 1992 GRUR 619 – *Klemmbausteine II*. However, in a more recent decision the BGH has held that after more than 45 years of market exclusivity for LEGO, that line of jurisprudence could no longer be maintained; German Federal Supreme Court (Bundesgerichtshof, BGH)GRUR 2005, 349 – *Klemmbausteine III.*

[19] German Federal Supreme Court (Bundesgerichtshof, BGH)GRUR 2007, 984 – *Gartenliege.*

Alternatively, assuming that the plaintiff could establish competitive individuality, the appeal court found that there was no avoidable deception as to commercial origin within the meaning of Sec. 4(9)(a) UWG because the public did not mistakenly believe that the imitation deck chairs were manufactured by the same producer of the original chairs.

The BGH vacated the judgment of the appeal court and remanded the case for renewed assessment. In particular, the Court rejected the appeal court's requirement that a producer demonstrate a manifest intent to identify itself as the commercial origin of its goods in order to establish competitive individuality. In addition, the Court criticized the appeal court's conclusion that an avoidable deception within the meaning of Sec. 4(9)(a) UWG could only be established if the public linked the product with one specific manufacturer. Although the plaintiff's deck chairs were distributed under the trademarks of a number of companies, the Court stated that a 'deception' could still exist if consumers were of the opinion that all those products originated from one and the same (anonymous) enterprise. Although the BGH remanded the factual issue of deception to the appeal court for reassessment, the Court made its position clear in pointing out that practically identical copying almost always gives rise to a risk of avoidable deception, because an 'interested spectator' will necessarily assume that identical products derive from the same commercial source.

The technical aspect of *Gartenliege* makes it particularly interesting for our context. According to both the appeal court and the BGH, the (objective) competitive individuality of the plaintiff's product was at least partially attributable to a small, functional detail – the plaintiff's sun bed was equipped with a mechanism in the form of a stirrup allowing adjustment and stabilization of the headrest. Before the Court, the defendant argued that such technical details should not be given weight in the determination of competitive individuality. The defendant contended that unless protected under a patent or utility model, technical solutions are dedicated to the public. Furthermore, as the appraisal of competitive individuality ought to be undertaken from the perspective of consumers, the defendant submitted that the utility functions served by the stirrup cannot be taken into account for the unfair competition assessment.

The BGH examined and rejected both arguments. Although the Court confirmed that everyone is generally entitled to make free use of the available state of the art in the absence of specific intellectual property protection, protection under unfair competition law remains available to technical elements when they contribute to a product's competitive individuality. While protection against imitation must be denied where a product's specific features are essential to achieve a technical result, the Court found this was not the case in *Gartenliege*. Regarding the second argument, the Court explained that it is sufficient if consumers are able to perceive the stirrup as such, in order for the element to be included in the appraisal of competitive individuality. It is not necessary that the public immediately and intuitively understands the technical function the stirrup was designed to fulfil.

2.4 Critical Evaluation of the Decision

2.4.1 'Freedom to Imitate' Reversed

Apart from echoing the principles established in previous unfair competition case law,[20] the *Gartenliege* decision confirms what is frequently observed in the literature; namely that while courts pay lip-service to the principle of 'freedom of imitation' of products not covered by intellectual property rights, prohibition against imitation is generally the rule rather than the exception. [21] Imitation – at least when it is close – is regularly enjoined unless it can be shown that it is justified for certain reasons that are typically quite narrowly construed.[22]

The tendency of courts to find actionable imitation becomes particularly visible in the Court's dictum that the public will generally assume that two products which appear identical are derived from the same commercial source. This is self-fulfilling prophecy *par excellence*. The question whether consumers expect identical or substantially similar products to originate from a single source is inextricably linked to the question whether only one manufacturer is entitled to produce them. That, however, is exactly the legal issue the Court is called upon to decide. What the public does or does not expect is, strictly speaking, a reflection of how the law of unfair competition is interpreted. If the principle of freedom to copy were actually honored as the general rule, the public would be aware that like products do not necessarily derive from a 'single source.' Similarly, because imitation is regularly forbidden, the expectations of the public are influenced accordingly. The Court's use of public opinion as a major prop for a legal decision of which that public opinion is merely a consequence, evokes an image of the title character from the popular tales of the 'Lying Baron' *von Münchhausen*, who when caught in a hole, managed to pull himself out by his own hair.[23]

2.4.2 The Technical Aspects

The Court's holding that the functional character of the stirrup does not preclude its potential validity as an element of competitive individuality also complies with a

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[20] *See supra* II.

[21] In this vein, *see* KUR, *supra* note 6, at 1 *et seq.* (arguing that instead of officially clinging to the old rule, courts should openly embrace the fact that a prohibition of imitation was rather the rule than the exemption, in order to enhance the transparency of jurisprudence, and establish a stable and reliable basis for developing secure guidelines *e.g.* for assessment of possible grounds for justification). See also SAMBUC, in HARTE/HENNING, at marginal note 35.

[22] In contrast, it had been argued in the article by KUR (previous footnote) that in order to honor the systematic difference between intellectual property and unfair competition law, the grounds for justification in the latter framework must be conspicuously more open and generously measured. KUR, *supra* note 6, at 2, 3 and *supra* note 9, at 776.

[23] Karl Friedrich Hieronymus Freiherr VON MÜNCHHAUSEN (1720-1797) had a reputation of telling fantastical stories about his adventures as an officer in the Russian army in the wars against the Osman empire. His tales have inspired various literary accounts and adaptations, among them (in English) RASPE, Baron Munchhausens Narrative of His Marvellous Travels und Campaigns in Russia (1785).

long-standing line of unfair competition jurisprudence.[24] The Court reasons convincingly that in order for a technical feature to be included in the appraisal of competitive individuality, it is sufficient that the feature can be viewed by consumers as a part of the product's visual appearance, without the feature's specific utility being immediately apparent. It therefore seems logical that it is only the appearance of the stirrup, and not its functionality, that counts in the appraisal of competitive individuality. However, neither the appeal court nor the Court definitively answered the question whether functionality itself could be used to establish competitive individuality (and admittedly the distinction is not always an easy one).

Once the Court established that the stirrup exhibited competitive individuality, the crucial question became whether the stirrup (whose status as a freely available element of the state of the art was uncontested) could nevertheless be employed by the defendant. As discussed above, the defendant could certainly use the stirrup if the use of that element were 'technically necessary' or 'essential' for fulfilling its purpose. However, with only a terse discussion of possible alternatives to the plaintiff's stirrup for adjusting and stabilizing the headrest, the Court conclusively stated that no such technical necessity could be found.

The BGH's conclusory discussion about the availability of alternatives invites the question whether such a rough and simple test can actually suffice. In answering this question, it is of interest that following the *Philishave* decision by the ECJ,[25] the availability of technical alternatives is not a valid argument against the exclusion of functional shapes from trademark protection. Although the *Philishave* decision concerns European trademark law and has no direct impact on national unfair competition law, given the systematic connection between both fields, it would at least be interesting to discuss whether the standards regarding protectability of functional shapes should differ within the framework of the UWG and within trademark law, and if so, how and why.

The BGH may have been aware of the issue at least to some extent. In the guidelines given to the appeal court for reconsidering the case, reference was made to the 'technical appropriateness' of the copying, a somewhat more generous standard than the traditionally employed notion of 'technical necessity.'[26] As discussed above, whether the imitation of a functional element is technically appropriate is based on the viewpoint of a reasonable person in light of the available solutions and the salability of the product.[27] It is submitted that for an exhaustive answer to that

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[24] *Supra* note 13 and accompanying text.

[25] ECJ, June 18, Case C-299/99 – *Philips/Remington*, [2002] ECR I-5475.

[26] It needs to be added, though, that the Court's negative attitude finds support in the fact that according to previous case law, technical appropriateness does not furnish an excuse for wholesale copying (*supra* note 18 and accompanying text). In the actual case, this was exactly what the defendant had been accused of – the deck chairs were more or less identical copies of those delivered by the plaintiff. On the other hand, apart from the stirrup, the shape and construction of the beds was rather plain and commonplace; there was not much room left for variations. It is at least arguable that this might have called for a different evaluation than in a situation when a product consists of a multitude of complex design features.

[27] *Supra* note 14 and accompanying text.

question, one would have to examine whether the stirrup, though not technically necessary, exhibited functional advantages over alternative solutions on the market. Additionally, a thorough evaluation of the product's marketability would include a determination whether the public had become accustomed to that particular feature in deck chairs sold under the defendant's trademark.

The fact that the BGH did not attribute any importance to this latter aspect is probably the most problematic portion of the decision. Indeed, when the situation is evaluated under a trademark law perspective, one cannot escape the conclusion that the defendant's conduct was proper. His customers had come to appreciate certain products that were legitimately sold under his trademark.[28] When the source delivering those goods no longer supplied them, the defendant tried to secure provision of the same product through another producer. The defendant's actions comply exactly with the central objective of trademark law, namely that it is up to the right holder to maintain the description and quality level of products sold under the trademark.[29] That the public was well aware that the defendant, whose main business was roasting and selling coffee, had attached his own label to products made by someone else[30] should be immaterial. It is an unchallenged rule that 'trade'marks in the literal sense (marques de commerce, Handelsmarken) are no less legitimate than producers' marks (marques de fabrique, Herstellermarken). In both cases, the essential function of the mark to guarantee commercial origin is ultimately based on the fact that the mark holder monitors the description and quality of the goods to which the mark is attached, and holds the exclusive power to decide whether, how and by whom the goods may be released on the market.[31] Therefore, the BGH's argument that consumers regularly expect the 'same source' (*i.e.*, the same manufacturer) to be producing the goods sold under a specific trader's mark appears to squarely contradict long-standing rules of trademark law and practice.[32]

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[28] Ironically, the BGH itself stressed in the decision that the plaintiff's deck chairs had gained a certain market recognition not least through the high number of sales that were made by, and under the trademark of, the defendant.

[29] Of course this would not be possible where the manufacturer of products sold under a trader's own brand are covered by an intellectual property right (patent, copyright, design). However, that was not the case here – the goods were basically 'free to be imitated.'

[30] The appeal court's findings in this regard were confirmed by the BGH.

[31] See decisions by the ECJ identifying the 'specific subject matter' of trademark law, in particular cases C 10/89, October 17, 1999 – *SA CNL-Sucal/HAG GF AG* (HAG II), [1990] ECR I-3711, para. 13, and C-9/93, June 22, 1994 – *IHT/Ideal Standard*, [1994] ECR 2789, para. 37: (in case of goods fabricated under a license) 'the origin which the trade mark is intended to guarantee is the same: *it is not defined by reference to the manufacturer* but by reference to the point of control of manufacture' (emphasis added). It is further understood and accepted in European trademark law that quality control must only be *possible* for the trademark holder; there is no general principle that the right would be forfeited or otherwise lost if the control is not actually exercised.

[32] In addition, the BGH's argumentation could also lead to the situation that a trader selling products under his own trademark is automatically tied to the person manufacturing the goods. In absence either of intellectual property protection or stipulation by contract, this would raise concerns under the aspect of competition law.

Lastly, the decision can hardly draw justification from the interests of consumers, which were indirectly invoked by the BGH's assumption that the defendant's sales amounted to an 'avoidable deception.'[33] Two options were at stake: the first would have enabled consumers to purchase essentially the same deck chair under the same trademark (the defendant's); the second denies the public the opportunity to purchase a similar deck chair and thereby 'protects' consumers against potential misconceptions because the manufacturer of the deck chair (who was and remains anonymous) has changed. One can hardly go wrong in assuming that if given a choice, consumers would unequivocally support the first of these options.

3. Some Reflexions on the European Level

In addition to his coffee shops in Germany, suppose that the defendant in the 'deck chair' case also operates a chain of coffee shops throughout the European Community. Motivated by the commercial success of the deck chairs in Germany, he orders more of those chairs to be made by manufacturers abroad for sale in all of his European establishments. Additionally, suppose that an enterprising trader buys the beds in large numbers from the defendant's shops in Romania at a very low price and sells them under the defendant's mark in discount stores in Germany. Based on this hypothetical, the defendant cannot oppose those sales on the basis of his mark due to the principle of regional exhaustion.[34] However, what about the legal result if our plaintiff (*i.e.*, the original manufacturer of those chairs in Germany), were the one to take the conflict to the German courts? Quite obviously, if the discount store sales are prohibited by unfair competition law, this would constitute a 'measure having equivalent effect' within the meaning of Article 28 EC. Is it possible then that the 'European dimension' thus added would lead to a different result than in the *Gartenliege* case?

The tension between unfair competition's prohibition of imitation and the principle of free movement of goods was addressed by the ECJ in *Industrie Diensten Groep v. Beele*.[35] The conflict concerned the importation into the Netherlands of cable ducts that had previously been under patent. When the patent expired in 1975, a competitor began manufacturing a substantially similar product in Germany. It was uncontested that the production was permitted under German law. Nevertheless, the owner of the expired patent contended that by importing the product and

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[33] It is generally accepted in the German doctrine that although referring to a (potential) deception of the public, the tort of 'avoidable deception' within the meaning of § 4(9)(a) UWG is not concerned with consumer protection, but is only intended to safeguard the individual interests of the 'victim' of the imitation. *See* in particular German Federal Supreme Court (Bundesgerichtshof, BGH), I ZR 283/88 of October 18, 1990, 1991 GRUR 223, 224 – *Finnischer Schmuck*, establishing the rule that claims for 'slavish imitation' may only be raised by the person whose rights have been violated.

[34] Article 7(1) TMD. This applies as long as the products have not been altered or deteriorated after having left the hands of the proprietor, Article 7(2) TMD.

[35] ECJ, March 2, 1982, Case 6/81 *BV Industrie Diensten Groep/J.A. Beele Handelsmaatschappij BV*, [1982] ECR 707.

selling it on the Dutch market, the defendant engaged in unfair competition. The Dutch courts of first and second instance concurred in finding that the German cable ducts could have been made differently without impairing their function. As a result, the courts concluded that the defendant was needlessly offering a nearly precise imitation of the plaintiff's products. However, because of the likely effect the ruling would have on the free movement of goods on the Common Market and the potential clash with ex-Article 30 EC, the appeal court referred the question to the ECJ.

In response, the ECJ referred to the principles it developed in its earlier decision in *Cassis de Dijon*, stating that 'disparities between national legislation must be accepted in so far as legislation…may be justified as being *necessary* in order to satisfy *mandatory requirements* relating in particular to the protection of consumers and fairness in commercial transactions.'[36] Continuing, the ECJ stated that 'national case-law prohibiting the precise imitation of someone else's products that is likely to cause confusion may indeed protect consumers and promote fair trading ….'[37]

In practice, the *Beele* decision was largely understood as giving *carte blanche* to national courts and legislators to use unfair competition law to prohibit any and all product imitation. Several decades later, however, the decision may have to be read more cautiously.[38] First, it should be noted that the referring court had already implied in its question that the imitation created 'confusion' on the market. No attempt was made by the ECJ to thoroughly explore the standards which govern the assessment of confusion, and in particular, the seriousness of the risk that consumers are actually misled about the commercial origin of the item. When confronted with the same issue today, the ECJ might investigate whether differences exist between the notion of 'confusion' within the context of the Unfair Commercial Practices Directive[39] and the notion of 'confusion' as employed under national rules of unfair competition.[40] If differences exist, the question would have to be posed whether those differences are justified in view of the obstacles to the free movement of goods which result.

Additionally, the referring court did not ask for, and the ECJ did not comment on, the proper criteria to apply to determine if the risk of confusion which may arise out of a close imitation is indeed 'needless.' Is it sufficient that alternative

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[36] *Id.*, at para. 7 (emphasis added) citing case ECJ, February 20, 1979, C-120/78 – *Rewe/Bundesmonopolverwaltung für Branntwein*, [1979] ECR 6349.

[37] *Id.*, at para. 9.

[38] *Inter alia*, it needs to be considered in this context that *Beele* was handed down at a time when harmonization of national provisions prohibiting the imitation of product shapes was quite rudimentary, whereas today, the texture of harmonized rules applying to such cases has become quite dense. In the first place, this concerns trademark and industrial design law, but to some extent it even applies to unfair competition law, at least in as far as imitations causing consumer confusion are concerned; see also below..

[39] *Supra* note 3.

[40] This would involve the question whether it complies with overarching principles of European law to assume that 'avoidable deception' in the meaning of unfair competition law is assessed in the interest of the affected (individual) party only, whereas the views and interests of consumers are not of direct relevance for the evaluation.

shapes exist for making the product function properly? Should it not rather be considered, as suggested above in light of the 'deck chair' case, whether those alternatives, though technically feasible, are inferior for functional *and* commercial reasons?[41]

It is not easy to predict the outcome should the issue be brought again before the ECJ. On one hand, it is apparent from *Beele* that the ECJ does not want to interfere with national courts' discretion in matters of unfair competition. On the other, it is not unreasonable that the ECJ would update its principles with a more liberal evaluation of what is necessary to safeguard the mandatory requirements of fairness in commercial transactions.[42] In particular, where the risk of actual, commercially relevant confusion of consumers is minimal as in the 'deck chair' case[43], or where any potential risk of confusion can be efficiently counteracted with additional measures (e.g. providing explicit information about the commercial origin of the imitation), an absolute prohibition against importation and sales of imitations seems disproportionate and might therefore fail the crucial test under Article 28 EC.

4. Concluding Remarks

As shown in this brief survey, products whose technical or functional features create competitive individuality may be protected under unfair competition law against imitation by competitors. It was also suggested, however, that the reasons on which that protection is founded – in particular when clad in the notion of 'avoidable deception' – may not always survive closer scrutiny. As a result, the protection granted under national unfair competition law may have to be reconsidered in the light of primary Community law, when national law interferes with the free movement of goods.

Nonetheless, it would go too far to claim that unfair competition law as currently applied seriously undermines the general principle that patent and utility model law form the sole domain for protection of technical innovations. While the case law developed with regard to product imitation has its problematic aspects, protection under unfair competition law remains substantially confined to the protection of shapes as such and does not bar competitors' access to technical solutions where such access is at least *necessary* to achieve a technical result. In addition, more liberal access to technical features may be heralded by the notion of 'technical appropriateness,' as used in some of the relevant unfair competition law decisions.

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[41] In *Beele*, the defendant had contended that the close similarity between the products was due to the fact that he needed to use the same dimensions in order to make his own product technically and commercially compatible with that of the plaintiff, which had grown into a sort of international industry standard. Neither the ECJ nor the two Dutch courts took that argument up for further consideration.

[42] This is what the *Cassis de Dijon* formula demands; *see supra* note 36 and accompanying text.

[43] *See supra* II.4.b. It is hardly plausible to assume that consumers who are interested in buying the same product under a trader's mark will be 'deceived' by the fact that the (anonymous) manufacturer of the product has changed.

To further explore and refine that notion could be a rewarding task for both jurisprudence and academics. Furthermore, the task may provide a substantial contribution toward a common European legal framework governing those portions of unfair competition that presently remain fragmented.[44]

[44] When Joseph Straus wrote his doctor thesis at the Max Planck Institute, the Institute's first director, Eugen Ulmer, had embarked on the ambitious task to investigate unfair competition law in the EEC member countries in order to elaborate a proposal for harmonization on that basis. That proposal was indeed made, but until now, the field has been left unharmonized except for practices concerning B2C relations. Straus' dissertation (*supra*, note 2) can be seen as an offspring of Ulmer's master plan, though it concerned a country which at that time seemed to be at a great distance from the EEC – a situation that has been overcome in our days at least for Slovenia, the part of former Yugoslavia that was home to Joseph Straus.

Reverse Engineering: Unfair Competition or Catalyst for Innovation?

Ansgar Ohly

1. Introduction

Reverse engineering is 'a process almost as old as man-made artefacts themselves.'[1] People of all ages have been curious to find out how things work. As long as the object of human curiosity is nature itself, society esteems the curious person as a scientist whose work benefits the common good. As soon, however, as a technician takes apart a machine made by someone else there is less unanimity about whether this activity is commendable or whether it is an act of piracy which the law should enjoin. While in the US 'reverse engineering has a long history as an accepted practice',[2] German courts and most commentators still follow a judgment handed down by the Reichsgericht (Supreme Court until 1945)[3] in which the court regarded the reverse engineering of a complex product as unfair competition.

In an era of globalized research this fundamental difference is astonishing for at least two reasons. First, restrictions on reverse engineering sit uneasily with one of the patent system's main objectives, namely the disclosure of technical information. Secondly, reverse engineering seems to be common practice in many fields of engineering. Nevertheless surprisingly little research on reverse engineering has been done in Europe. Around 1990 the Commission's proposal for a Directive on the Protection of Computer Programs sparked some discussion about the conditions on which the decompilation of programs should be permitted.[4] This debate, however, remained restricted to the software field, did not treat reverse engineering as a matter of principle and quickly died down after the adoption of the directive.[5] In the US, arguably the issue of federal pre-emption has helped to uncover potential conflicts between patent law and trade secrets law. Several Supreme Court judgments and

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1 *Mars UK Ltd v. Teknowledge Ltd.*, [2000] FSR 138 at para. 29 per Jacob J. .

2 SAMUELSON/SCOTCHMER, The Law and Economics of Reverse Engineering, 111 Yale L. Rev. 1575, 1577 (2002).

3 Reichsgericht of November 22, 1935, 149 Reports of the Reichsgericht (RGZ) 329 = 1936 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 183 – *Stiefeleisenpresse*.

4 *See* HABERSTUMPF, Die Zulässigkeit des Reverse Engineering, 1991 Computer und Recht (CR) 129; HART, Interfaces, Interoperability and Maintenance, 13 EIPR 111 (1991); HARTE-BAVENDAMM, Wettbewerbsrechtliche Aspekte des Reverse Engineering von Computerprogrammen, 1990 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 657; TAEGER, Softwareschutz durch Geheimnisschutz, 1991 Computer und Recht (CR) 449; VINJE, Threat to Reverse Engineering Practices Overstated, 16 EIPR 364 (1994); WIEBE, Reverse Engineering und Geheimnisschutz von Computerprogrammen, 1992 Computer und Recht (CR) 134.

5 *See* LEHMANN, in: LOEWENHEIM (ed.), Handbuch des Urheberrechts, Section 76, para. 24 (2003).

other decisions have shed some light on this issue and have given rise to academic work on the law and the economics of reverse engineering.

This article will define reverse engineering (2), will look at the different approaches adopted by US and German trade secrets and intellectual property law (3) and at policy reasons for and against allowing reverse engineering (4). *Joseph Straus*, to whom this contribution is dedicated, has always taken great interest in fundamental issues of patent law. He is also one of the few German law academics who are equally at home in German, European and US law. Since this analysis will uncover tensions between trade secret law and patent law and divergences between German and US law, this author hopes that his article might be of *Joseph Straus's* interest.

2. Reverse Engineering: Definition and Practical Significance

2.1 Reverse Engineering Defined

Engineering is the creative application of scientific principles to design or develop structures, machines, apparatus, or manufacturing processes or works.[6] It is a process which starts from principles and ends up with the product as a result. Reverse engineering is just the opposite: it is a process starting with the known product and working backward to find out the technical principle behind it.[7]

In traditional branches of engineering this analysis may be carried out by taking a machine apart and by analysing its components. More modern methods include the chemical analysis of components or the electronic scanning of the shape of the product or of its parts. Since the advent of computer technology, the decompilation or disassembly of computer programs has become the perhaps most important area of reverse engineering. At least 'proprietary' software is generally distributed in the form of a binary object code, whereas only the source code which is written in a programming language is understandable to humans. With the help of specific software it is possible to decrypt the object code. However, significant effort may be necessary to interpret the data achieved in this process.[8]

2.2 Why Reverse Engineer?

The driving force behind reverse engineering may be pure curiosity. In an academic environment, curiosity is the starting point of research: particularly in disciplines like information sciences and engineering, reverse analysis may be an important research tool and may also be used in teaching. When, however, reverse engineer-

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[6] Definition given by the American Engineers' Council for Professional Development, available at <http://en.wikipedia.org/wiki/Engineering> (as of April 2008).

[7] *See Sinclair v. Aquarius Electronics, Inc.*, 42 Cal.App.3d 216, 226, 116 Cal.Rptr. 654, 661 (1974).

[8] JOHNSON-LAIRD, Software Reverse Engineering in the Real World, 19 U. Dayton L. Rev. 843 (1994); HARTE-BAVENDAMM *supra* note 4, at 659-660.

ing is carried out in the course of business activities, there is usually a commercial motive for being curious. Three main reasons can be distinguished.

The first scenario is that of the 'innovative analyst', who seeks to further his or her technological knowledge in order to devise new, innovative products or to improve existing products. If the common purpose of patent and trade secrets law is the enhancement of innovation, there seems to be a *prima facie* case for allowing 'innovative' reverse engineering, particularly if the analyst would not have been able to gather the information by other means.

The second scenario, of the 'copycat analyst', is more mundane. This person uses reverse engineering in order to copy a product. The leading German case of 1935[9] is an example in point. A company which had bought a complex machine manufactured by the plaintiff needed another machine of this sort but did not want to pay the monopoly price. Thus the company asked the defendant to take the machine apart, to produce exact drawings of all components and to manufacture a similar machine. There is a grey area between reverse engineering and pure copying here,[10] as one of the leading US cases shows. The *Bonito Boats* case[11] was about the copying of boat hulls by a molding technique. The construction of the boat hull was not really secret, but the molding procedure allowed cost-cutting copying of the hull. While we will have to analyze the different reactions of the German and the US courts in detail later, we can already note that the 'copycat's' behavior may be less desirable from an economic point of view, as it deprives the original manufacturer of the possibility of recouping its investment in the development of a new machine.

Thirdly, reverse engineering may allow the owner of an intellectual property right to find out whether the manufacturer of the product has infringed the right (the 'right owner-analyst'). In this scenario reverse engineering may be a speedy and cheap possibility of securing evidence.

While these three motives apply to all types of technology, there are additional reasons for the reverse engineering of software.[12] The most important one is decompilation or disassembly for the purpose of achieving interoperability. While many software producers publish interface specifications, some either do not publish this information at all or hold back at least some information which an independent programmer may need in order to produce an interoperable program. In some cases competition law may require the disclosure of information on programming interfaces, as the recent decision of the Court of First Instance in the *Microsoft* case[13] shows. But the software market may be too dynamic to allow an independent producer to wait for a court injunction for several years. Reverse engineering may

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[9] *Stiefeleisenpresse, supra* note 3.

[10] *See* also LANDES/POSNER, The Economic Structure of Intellectual Property Law 370 (2003): 'Indeed, from an economic standpoint there is little distinction between really cheap reverse engineering on the one hand and piracy on the other.'

[11] *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989).

[12] A more detailed analysis of these motives is given by HARTE-BAVENDAMM *supra* note 4, at 659.

[13] Case T-201/04, *Microsoft v. Commission*, [2007] ECR II-0000 (not yet officially reported).

allow speedy self-help. It may also be necessary for adapting a program to different hardware or to another operating system or for repairing faults or detecting bugs.

It emerges that there is a wide range of possible motives for reverse engineering. In some cases reverse engineering is a necessary or at least useful step in the process of further innovation, in other cases it may only enable imitation.

3. The US Approach and the German Approach Compared

3.1 Different Principles: Trade Secrets and Reverse Engineering

3.1.1 International Law

Reverse engineering is only necessary where the technical principles embodied in the product are not generally known or readily accessible. Thus the first starting point of our legal analysis is the protection of undisclosed information, which all WTO Members are under an obligation to provide.

In Art. 39(1) TRIPS the protection of undisclosed information is classified as a part of unfair competition law in the sense of Art. 10^{bis} of the Paris Convention. Art. 39(2) TRIPS defines the concept of 'undisclosed information' by listing three criteria: the information must be (a) secret in the sense that it is not generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question, (b) has commercial value because it is secret and (c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret. However, Art. 39(2) TRIPS also stresses that there is no absolute property right in undisclosed information. Disclosure or unauthorized use of the information only needs to be prevented if these acts are contrary to honest commercial practices. Note 10 explains that at least practices such as breach of contract, breach of confidence and inducement to breach are to be considered as dishonest.

The provision does not explicitly refer to reverse engineering. In particular, it does not decide whether information which can only be made available through a costly and time-consuming reverse analysis is to be considered as 'undisclosed' and whether reverse engineering is always or at least in some situations 'contrary to honest commercial practices'. While US and German law both protect trade secrets in accordance with Art. 39 TRIPS, they disagree fundamentally about whether reverse engineering is fair or unfair.

3.1.2 USA: Reverse Engineering as Proper Method of Obtaining the Secret

In the US, trade secrets are protected by state law, not by federal law. Many states have adopted the 1979 Uniform Trade Secrets Act, and some guidance is also given by the 1995 Restatement of Unfair Competition.[14] The Restatement defines a trade secret as 'any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable and secret to afford an actual or potential

[14] AMERICAN LAW INSTITUTE, Restatement of the Law 3rd, Unfair Competition (1995).

economic advantage over others'[15] and states that trade secrets are only protected against disclosure or discovery 'by improper means'.[16] Trade secrets are predominantly protected by private law, although the statutory law of some states also provides for criminal law sanctions.

Patent law, on the other hand, is federal law. This raises the issue of pre-emption: states cannot give protection of a kind that clashes with the objectives of the federal patent laws.[17] Thanks to this specific feature of US law, possible conflicts between patent and trade secret protection have arguably been analyzed in greater depth in the US than anywhere else. Indeed, one of the purposes of patent law is the disclosure of technical information. If trade secret law is prepared to protect technical information which is kept secret, there seems to be a prima facie conflict. This issue was discussed by the US Supreme Court in *Kewanee v. Bicron*,[18] a classical trade secret case about the wrongful use and disclosure of trade secrets by former employees. The court found that trade secret law did not interfere with federal patent policy. In the case of clearly unpatentable information the abolition of trade secret law would, according to the court, clearly not enhance disclosure, as a reasonable holder of the secret would rather hoard the information than disseminate it under an obligation of confidence. Patent law did not encourage espionage; on the contrary the state was under an obligation to protect privacy. In cases where patentability was doubtful, the abolition of trade secret protection would force inventors to file even the most dubious inventions. But the court did not even assume a conflict between trade secret protection for patentable inventions and patent policy: the inventor could not just sit back and rely on secrecy protection because this type of protection was much weaker than patent protection. While patent protection was absolute, trade secrets were not protected against the discovery of the information by fair and honest means such as independent creation or reverse engineering. It can be inferred from this reasoning that a state statute which prohibited reverse engineering would be pre-empted by federal law.

This conclusion was indeed drawn by the Court of Appeals for the Ninth Circuit in the *Chicago Lock* case.[19] The plaintiff was a manufacturer of high-quality locks. It kept the information of its key codes secret and did not disclose it to locksmiths. If the purchaser of a lock lost a key, he or she had to order a new one from the plaintiff. Another practical possibility was to ask a locksmith to "pick" the lock and to find out the key specification that way. Locksmiths collected data on key codes over time. The defendants obtained this information and published it in a book. The District Court held that this practice amounted to an improper acquisition of trade secrets. The Court of Appeals set this judgment aside and stressed that reverse engineering was a legitimate means of discovering a trade secret. Trade secret protection

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[15] *Id.*, Section 39.
[16] *Id.*, Section 40.
[17] *See* Art. VI, clause 2 of the US Constitution and *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 231 (1964).
[18] *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974).
[19] *Chicago Lock Co. v. Fanberg*, 676 F.2d 400 (9th Cir. 1982).

in this case would in effect have created an intellectual property right, which would have been pre-empted by federal patent law.[20]

Eventually, the Supreme Court discussed the policy reasons behind allowing reverse engineering in the *Bonito Boats* case.[21] The defendant had copied the plaintiff's unpatented boat hulls by a 'direct molding process', which a Florida statute prohibited. The Supreme Court held that this statute was pre-empted by the supremacy clause. As already noted above, this is a borderline case between reverse engineering and the outright copying. Indeed, a substantial part of the judgment is dedicated to the question whether the law should enjoin the copying of products not protected by intellectual property rights by means of unfair competition law. The court rejected this idea, stressing the need for a careful balance between legal protection of innovation and the freedom to imitate:

> From their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.[22]

Freedom of imitation was the necessary corollary of intellectual property protection: the patent system would be undermined if unfair competition law granted protection without the careful protections and high standards inherent in the patent system. Imitation could be an essential part of innovation. Reverse engineering, in particular, often led to significant advances in technology.[23]

By now it seems to be generally accepted in US law that the discovery of a trade secret by means of reverse engineering cannot be regarded as a discovery by improper means. The Restatement explicitly stresses this point in Section 43. It is less clear whether technical information embodied in a product which is freely available on the market can be considered as a secret at all. The comments to the Restatement combine the issues of secrecy and disclosure by improper means by stating that information is not secret which is generally known or ascertainable by proper means. In an English decision about the reverse engineering of a coin discriminator named 'Cashflow', Jacob J. (as he then was) was more explicit:

> [D]oes the encrypted information in the Cashflow have 'the necessary quality of confidence'? I think the answer is clearly 'no'. The Cashflow is on the market. Anyone can buy it. And anyone with the skills to de-encrypt has access to the information.[24]

Later in his judgment, Jacob J. also rejected the second requirement existing under the English 'breach of confidence' doctrine, namely the requirement of an obligation of confidence.[25]

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[20] *Id.*, at 405.
[21] *Supra* note 11, at 141.
[22] *Supra* note 11, at 146.
[23] *Supra* note 11, at 160.
[24] *Supra* note 1, at para. 31.
[25] On reverse engineering as a limit to confidence liability in English law see CORNISH/LLEWELYN, Intellectual Property, paras 8-20 (2007).

3.1.3 Germany: Reverse Engineering as Unfair Competition

One of the traditional features of German unfair competition law is its broad prohibition of unfair trade practices, now set forth in Section 3 of the Act against Unfair Competition of 2004 (*Gesetz gegen den unlauteren Wettbewerb*, UWG). This provision has the great advantage of flexibility and the great disadvantage of uncertainty. The latter has, however, meanwhile been reduced by the inclusion of a detailed list of unfair acts into the statute. From this perspective it is rather surprising that trade secrets are not protected by an equally flexible rule but by a rather detailed criminal provision. While Section 17(1) Act against Unfair Competition proscribes the disclosure of trade secrets by employees, Section 17(2) No. 1 prohibits the unjustified acquisition of a trade secret by (a) technical means, (b) producing a tangible embodiment of the secret or by (c) stealing an item in which the secret is embodied. Section 17 does not define the concept of 'trade secret'. The Federal Supreme Court regularly applies four conditions:[26] a trade secret must relate to a particular business, the information must neither be generally known nor easily available, the holder of the information must have the intention of keeping it secret and there must be a legitimate economic interest in secrecy. There is no broad test of fairness. Rather, the acquisition of the secret is considered unjustified unless there are specific grounds of justification such as consent, state of emergency, a contractual claim for disclosure or a statutory duty of disclosure.[27]

The issue of reverse engineering was considered by the Reichsgericht, the German Supreme Court before 1945, in the 'boot iron press' judgment of 1935.[28] The plaintiff produced machines which were used to produce boot irons, i.e. irons used to strengthen the sole of boots. This machine had been patented, but the patent had already expired 36 years ago. A Polish company had bought one of the plaintiff's machines, needed a second one, but considered the plaintiff's price as excessive. Thus the Polish firm asked the defendant to produce an identical machine. The defendant accepted the order, took the machine apart, made detailed drawings of all components and was thus able to construct a similar machine. The plaintiffs asserted that this practice constituted unfair competition under Section 17 UWG and under the doctrine of slavish imitation. The court upheld the claim on both counts. At first sight, the court's reasoning with respect to Section 17 UWG is entirely formal: the court found that all the requirements set forth in Section 17 UWG had been fulfilled. Information which was embodied in a product did not cease to be secret when the product was sold, provided that substantial effort was

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[26] Federal Supreme Court (Bundesgerichtshof, BGH) of March 15, 1955, 1955 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 424, 425 – *Möbelpaste*; of November 7, 2002, 2003 GRUR 356, 358 – *Präzisionsmessgeräte*; ANN, Know-how – Stiefkind des Geistigen Eigentums?, 2007 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 39, 41; KÖHLER, in: HEFERMEHL/KÖHLER/BORNKAMM, Wettbewerbsrecht, Section 17, notes 5-10 (26th ed. 2008); OHLY, in: PIPER/OHLY, UWG, Section 17, note 5 (4th ed. 2006).

[27] *See* BRAMMSEN, in: HEERMANN/HIRSCH (eds), Münchener Kommentar zum Lauterkeitsrecht Section 17, note 51 (2006); HARTE-BAVENDAMM, in: HARTE-BAVENDAMM/HENNING-BODEWIG (eds), UWG, Section 17 (2004); KÖHLER *supra* note 26, Section 17, notes 21 and 36.

[28] *Stiefeleisenpresse, supra* note 3.

necessary in order to discover the information; the plaintiff had acquired this information by technical means and no ground of justification was made out. Between the lines, however, a substantive line of argument can be detected. The court points out that the defendant, by taking apart a machine 'which was not meant to be taken apart', had strengthened its own competitive position at the plaintiff's cost.[29] In other words: the defendant had reaped where it had not sown. Considerable investment had gone into the development of the original machine and the defendant saved costs, which thus enabled him to undercut the plaintiff's price. The decision is very unsatisfactory because the court does not openly address the relevant policy issues, particularly the apparent conflict with patent policy.[30] The desire to protect the plaintiff against the misappropriation of its know-how is hidden behind vague notions of what an honest merchant would have considered appropriate.

This judgment has been applied by the courts in later cases.[31] Only the Düsseldorf and the Hamburg Courts of Appeals have distinguished the 'boot iron press case.'[32] However, both courts did not openly reject the old doctrine but held that in the cases at hand the defendant had not had to take substantial efforts in order to discover the secret. Most commentators cite the Reichsgericht's decision with approval,[33] in particular the principle that information embodied in a freely available product can remain a secret where substantial effort is necessary in order to discover the information. Policy reasons for allowing reverse engineering regularly remain unmentioned. In particular, the fact that trade secret law may in effect be relied upon in order to protect an invention after the patent has expired, has met with surprisingly little criticism.[34] In the discussion which was sparked by the Commission's plans for a Software Directive around 1990, most authors applied the established principles of trade secrets law to the software field.[35] In this context only few

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[29] *Stiefeleisenpresse, supra* note 3, at 187.

[30] As was already pointed out earlier by BAUMBACH/HEFERMEHL, Wettbewerbsrecht, Section 1, note 478 (22th ed. 2001). See also *infra*, note 41.

[31] Federal Supreme Court (Bundesgerichtshof, BGH) of February 12, 1980, 1980 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 750, 752 – *Pankreaplex II*; Bavarian Supreme Court of Appeals (Bayerisches Oberstes Landesgericht, BayObLG) of August 28, 1990, 1991 GRUR 694, 695 – *Geldspielautomat*; Federal Labour Court (Bundesarbeitsgericht, BAG) of March 16, 1982, Arbeitsrechtliche Praxis (AP) No. 1 on Section 611, Betriebsgeheimnis – *Thrombozyten-Reagenz*; Celle Court of Appeals (Oberlandesgericht, OLG) of May 13,1968, 1969 GRUR 548, 549 – *Abschaltplatte*.

[32] Düsseldorf Court of Appeals (Oberlandesgericht, OLG) of July, 30, 1998, 1999 OLGR Düsseldorf 55, 58; Hamburg Court of Appeals (Oberlandesgericht, OLG), of October 19, 2000, 2001 Gewerblicher Rechtsschutz und Urheberrecht – Rechtsprechungsreport (GRUR-RR) 137, 139 – *PM-Regler.*

[33] *See* BRAMMSEN *supra* note 27, Section 17, note 15; KÖHLER, *supra* note 26, Section 17, note 8; WESTERMANN, Handbuch Know-how-Schutz, para. 50 (2007).

[34] But *see* BEATER, Unlauterer Wettbewerb, Section 18, para. 16 (2002); MAIER, Der Schutz von Betriebs- und Geschäftsgeheimnissen im schwedischen, englischen und deutschen Recht, 305 (1998); OHLY *supra* note 26, Section 17, note 10.

[35] HARTE-BAVENDAMM, *supra* note 4, at 660-664; TAEGER, *supra* note 4, at 456.

writers challenged the proposition that trade secret law granted protection against reverse engineering.[36] It can only be guessed why German literature, which is rather extensive and elaborate in most fields of intellectual property and unfair competition law, has paid so little attention to reverse engineering in particular and to trade secret protection in general.[37] One reason may be that both patent and unfair competition law are federal law in Germany. So no issue of pre-emption forces courts and legal authors to investigate the relationship between patents and trade secrets more closely. Another reason may be that Section 17 UWG is a criminal law provision. As such it falls between the chairs of criminal doctrine, which rather seems to focus on murder and fraud than on unfair competition law, and intellectual property law doctrine, which is so firmly rooted in private law that it tends to neglect criminal provisions.

3.2 Much Common Ground: The IP Framework

While US and German law take opposite positions on trade secret protection against reverse engineering, there is much more consensus when it comes to the intellectual property law framework.

One of the fundamental assumptions of the *patent* system is that the grant of a patent is one side of a deal between the inventor and society. As a *quid pro quo* for being granted an exclusive right, the inventor discloses the invention. Thus patent law enhances innovation in two respects: by granting an exclusive right it allows the patentee to recoup its research and development investments and by insisting on the publication of applications it spreads technical information.[38] This rationale militates in favour of allowing reverse engineering: from a patent law perspective there is nothing wrong with finding out how things work. Indeed, in an optimal patent system there would be no need to reverse engineer patented inventions as they would have been sufficiently described in the patent application. But even if the purchaser of a patented product wishes to analyze it, patent law will not prevent him or her from doing so. The purchaser is free to possess, use and investigate the patented product, since all patent rights in the particular item are exhausted at the first sale. While the reconstruction of a patented product may infringe the patent, the

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[36] WIEBE, *supra* note 4, at 140 *et seq*.

[37] ANN, *supra* note 26, at 39, characterises know-how as a 'stepchild of intellectual property'. He rightly notes, however, that this paucity is relative, not absolute, *see* KRASSER, Grundlagen des zivilrechtlichen Schutzes von Geschäfts- und Betriebsgeheimnissen sowie von Know-how, 1977 GRUR 177; MAIER *supra* note 34; SCHLÖTTER, Der Schutz von Betriebs- und Geschäftsgeheimnissen und die Abwerbung von Arbeitnehmern (1997).

[38] *See* BEIER/STRAUS, The Patent System and Its Informational Function – Yesterday and Today, 8 IIC 387, 392-394 (1977); BEIER, The Significance of the Patent System for Technical, Economic and Social Progress, 11 IIC 563, 581-583 (1980); LANDES/POSNER, *supra* note 10, at 13 *et seq.* and 294-297; MACHLUP/PENROSE, The Patent Controversy in the Nineteenth Century, 10 J. Econ. Hist. 1 *et seq.* (1950).

reverse analysis as such does not.[39] Finally, at least in most European jurisdictions reverse engineering would be covered by the research privilege, whereas in US law the commercial analysis of patented products may not be justified.[40] Despite this difference, reverse engineering will rarely, if ever, infringe a patent.

One highly specialized and at the same time internationally harmonized branch of intellectual property law[41] even contains an explicit permission of reverse engineering. While the reproduction of *semiconductor chip layouts* without the authorization of the right owner is prohibited by Art. 6 (1) of the Washington Treaty on Intellectual Property in Respect of Integrated Circuits and the corresponding EC[42] and national legislation,[43] Art. 6(2) allows reproduction 'for the sole purpose of evaluation, analysis, research or teaching'.[44] These provisions strike an interesting balance: they allow learning while at the same time prohibiting free-riding. They can be traced back to a more general principle the extension of which to other areas of intellectual property and competition law will have to be discussed later: it may generally be permissible to find out technical information, even if it is not readily available, but the imitation of the original product may be prohibited where there are sound policy reasons for granting such protection.

As long as *copyright* did not protect technical subject-matter there was no need to reverse engineer copyrighted works. Copyright protects the expression, not the idea;[45] and as regards classical types of works such as books, works of art or music the idea is readily ascertainable to the reader, viewer or listener. With the advent of copyright protection for computer programs, however, reverse engineering became an issue. As noted before, at least 'proprietary' software is usually distributed in machine-readable form only. Thus the only form of expression available to the user is a form which he or she cannot understand. The 'programming idea' can only be found out if it has been decrypted first. Technically, however, the decompilation of a program is an alteration, which without the right owner's authorization is prohibited by copyright law unless an exemption from copyright applies.[46] At this point

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[39] *See* KRASSER, Patentrecht, 813, Section 33 IV b 2 (2004); SAMUELSON/SCOTCHMER *supra* note 2, at 1611, however, entertain doubts. In the field of software patents this point may require some further consideration since arguably the program is 'reconstructed' in the course of decompilation.

[40] *See* EISENBERG, Patents and the Progress of Science: Exclusive Rights and Experimental Use, 56 U. Chi. L. Rev. 1017, 1023 (1989); HOLZAPFEL, Das Versuchsprivileg im Patentrecht und der Schutz biotechnologischer Forschungswerkzeuge, 110.

[41] Which is, however, of limited practical importance, *see* NIRK/ULLMANN, Patent-, Gebrauchsmuster- und Sortenschutzrecht, 183 (2007); RISBERG, Five Years without Infringement Litigation under the Semiconductor Chip Protection Act, 1990 Wis. L. Rev. 241, 277.

[42] Art. 5(1) of Council Directive 87/54/EEC of 16 December 1986 on the legal protection of topographies of semiconductor products, [1986] OJ L 24, p. 36.

[43] *See* Section 6(1) German Semiconductor Protection Act (*Halbleiterschutzgesetz*); for the US: 17 U.S.C. Section 905.

[44] Parallel provisions: Art. 5(3) of the EC Semiconductor Topographies Directive; Section 6(2) No. 3 German Semiconductor Protection Act; 17 U.S.C. Section 906 (USA).

[45] Art. 9(2) TRIPS.

[46] DREIER, in: DREIER/SCHULZE, Urheberrechtsgesetz, Section 69e, note 1 (2nd ed. 2006); LOEWENHEIM, in: SCHRICKER (ed.), Urheberrecht, Section 69e, note 17 (3rd ed. 2006).

US and European laws differ. Several US courts have regarded reverse engineering of computer programs as fair use, if done for legitimate purposes such as achieving interoperability[47] or emulating the function of a PlayStation console in order to make it compatible with a regular computer.[48] While the EC Software Directive also allows decompilation for the purpose of achieving interoperability, the exception,[49] which was the subject of much controversy,[50] is more restrictive: decompilation must be indispensable to obtain the necessary information, the acts must be performed by a person having a right to use the program, the information must not have been readily available and the exception is restricted to the parts of the original program which are necessary to achieve interoperability. Decompilation for other purposes such as detecting copyright infringement, porting or repair[51] is not permitted. While the Directive permits the user 'to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program', it is clear from the systematic structure of the directive that the permitted acts of analysis do not include decompilation.[52]

Two further copyright issues can only be noted in passing here. First, even if copyright law itself allows the decompilation or disassembly of computer programs, right holders may try to include clauses prohibiting these acts into their licences. While the EC Software Directive declares contract clauses void which circumvent the provision on interoperability, shrink wrap licenses which prohibit reverse engineering have been held to be valid in the US.[53] Secondly, both the US Digital Millennium Copyright Act[54] and the EC Directive on Copyright in the Information Society[55] contain provisions which protect technical protection measures against circumvention. Both pieces of legislation define the concept of 'circumvention' broadly. The reverse engineering of technical protection measures is likely to

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47 *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1520 *et seq.* (9th Cir. 1992).

48 *Sony Computer Entertainment, Inc. v. Connectix Corp.,* 203 F.3d 596 (9th Cir. 2000).

49 Art. 6 of Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, [1991] OJ L 122, p. 42.

50 On which see CORNISH/LLEWELYN, *supra* note 25, para. 20-19.; DREIER, The Council Directive of 14 May 1991 on the Legal Protection of Computer Programs, 13 EIPR 319, 324-326 (1991).

51 *See* DREIER, *supra* note 46, Section 69d, note 10; LOEWENHEIM, *supra* note 53, Section 69d, note 3; in favor of allowing decompilation for the purpose of repair LEHMANN, *supra* note 5, Section 76, para. 30.

52 *See* BLOCHER in: WALTER (ed.), Europäisches Urheberrecht, Software-RL, Art. 5, note 33 (2001).

53 *Bowers v. Baystate Technologies, Inc.*, 320 F.3d 1317, 1323 *et seq.* (Fed. Cir. 2003). This approach, however, has met with widespread criticism, *see* SAMUELSON, Principles for Resolving Conflicts between Trade Secrets and the First Amendment, 58 Hastings L.J. 777, 790-796 (2007); LEMLEY, Terms of Use, 91 Minn. L. Rev. 459, (2006); RÜTING, Die urheber- und patentrechtliche Beurteilung von beschränkenden Klauseln bei der Überlassung von Standardsoftware in Deutschland und den USA, 319 *et seq.* (2007), all with further references.

54 17 U.S.C. Section 1201 *et seq.* .

55 Art. 6 of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, [2001] OJ L 167, p. 10.

infringe both the US and the European anti-circumvention provisions.[56] Both issues are too specific to the software area to be discussed here. Suffice it to say that if there are sound policy reasons for allowing reverse engineering, there will also be a need for careful scrutiny of anti-reverse engineering clauses in mass-market contracts and there will be some support for saying that anti-circumvention-provisions go too far if they also fully prohibit the reverse engineering of technical protection measures.

4. Policy Considerations

4.1 Trade Secret Law Justified

The obvious tension between the patent system's objective of spreading technical information and of trade secret law's purpose of preserving secrecy begs the question of why trade secret protection is justified. Indeed, powerful objections to secrecy protection have been voiced.[57] This question, which is by-passed by many European authors, is so complex that it cannot be answered satisfactorily in this short article.[58] Nevertheless some answers can be gleaned from the analysis of US law conducted above.

First, particularly older cases on both sides of the Atlantic have frequently referred to the standards of commercial honesty, arguing that anyone who obtains a competitive advantage through a breach of confidence acts unfairly.[59] From a modern perspective, however, this reference to honesty is inherently vague.[60] While there may be a generally shared conviction that breaches of confidence or industrial espionage are dishonest, standards of honesty are easier maintained than proven, and they are of little assistance for the resolution of borderline cases.

Secondly, there is a parallel between personal privacy and trade secret protection. As much as every person has the 'right to be let alone', every business needs an internal sphere which is protected from the public eye.[61] Whereas respect for personal privacy stems from the protection of human rights, the reasons for respecting

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[56] For European law *see* PEUKERT in: LOEWENHEIM *supra* note 5, Section 35, para. 15; GÖTTING, in: SCHRICKER *supra* note 46, Section 95a, note 10; for US law *see* REICHMAN/DINWOODIE/SAMUELSON, A Reverse Notice and Takedown Regime to Enable Public Interest Uses of Copyright Works, 22 Berkeley Tech L.J. 981, 1036-1037 (2007); SAMUELSON/SCOTCHMER, *supra* note 2, at 1642-1646.

[57] *See* BONE, A New Look at Trade Secret Law: Doctrine in Search of Justification; 86 Cal. L. Rev. 241 (1998); CHEUNG, Property Rights in Trade Secrets, 20 Econ. Inquiry 40 *et seq.* (1982).

[58] On this discussion *see*, on the one hand, CHIAPETTA, Myth, Chameleon or Intellectual Property Olympian: A Normative Framework Supporting Trade Secrets Law, 8 Geo. Mason. L. Rev. 69 (1999); RISCH, Why Do We Have Trade Secrets? 11 Marq. Intell. Prop. L. Rev. 1 (2007), on the other hand BONE, *supra*, note 57.

[59] These references are frequent in the German 'boot iron press' case *supra* note 3; for US law *see* the references given in *Kewanee Oil*, *supra* note 18, at 481-482.

[60] *See* BONE, *supra*, note 57, at 294.

[61] *Kewanee Oil v. Bicron*, *supra*, note 18, at 487.

'business privacy' are more functional. Innovation does not happen overnight. Enterprises need a protected 'laboratory zone' where technology can be tested and where business strategies can be discussed confidentially. Public attention and close monitoring by competitors would thwart these innovative processes at the very beginning. By protecting this sphere of confidentiality, trade secrets law makes sure that the developer has a natural lead time in the market,[62] thereby promoting innovation.

A third point is closely related: trade secret protection is the necessary corollary of the novelty requirement in patent law. The applicant must be given the chance to develop its invention up to the point where it is ready for application. Abolishing trade secret protection would dramatically increase the risk of a premature novelty-destroying disclosure of inventions.

A fourth argument has been stressed in law and economics research:[63] without legal protection there would be a strong incentive to invest into measures of maintaining secrecy. Trade secrets law facilitated the disclosure of information to employees and licensees and discourages wasteful expenditure in the protection of business premises and in technical protection measures.

However, trade secrets law is not only relied upon to bridge the time before the marketing of a product. Many industries rely on trade secret protection as a substitute for intellectual property protection, either because a particular intangible subject-matter falls between the chairs of intellectual property law (as is arguably the case with food recipes such as Coca Cola's secret formula) or because trade secret protection is regarded as a cheaper and potentially endless alternative to patent protection. Thus it could be argued that the main purpose of trade secret protection was to protect investment as such against misappropriation and to fill gaps in the intellectual property system,[64] or, based on a Lockean theory, to secure to the owner of the secret the fruits of his labour.[65] This argument, however, is fallacious, because it implies that every intangible subject matter should be protected against unauthorized exploitation if investment or creativity went into its generation. Whether the law should grant general protection against 'reaping without sowing' is one of the most fundamental and most disputed questions of intellectual property law. National approaches differ. English[66] and US law[67] answer this question in the negative. In German law the copying of subject-matter which is not protected by an intellectual property right is not proscribed as such, but can only be considered as

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[62] REICHMAN, Legal Hybrids between Patents and Copyright, 94 Colum. L. Rev. 2432, 2507 (1994).

[63] *See* LANDES/POSNER, *supra* note 10, at 364; RISCH, *supra*, note 58, at 37 et seq.

[64] LANDES/POSNER, *supra* note 10 at 359.

[65] RISCH, *supra*, note 58, at 28 et seq.

[66] *Hodgkinson & Corby Ltd. v. Wards Mobility Services Ltd.* (No. 1) [1995] FSR 169, 174 *et seq.*; *L'Oréal SA v. Bellure NV*, 2007 EWCA (Civ) 968 at paras 138 *et seq.*

[67] *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225 (1964); *Bonito Boats, supra* note 11; *see* also REICHMAN, *supra* note 60, at 2476.

unfair if additional factors of unfairness are present.[68] While Art. 5(c) of the Swiss Act against Unfair Competition proscribes 'the identical exploitation of the results of someone else's labour by means of a technical reproduction process without reasonable personal efforts', the provision has been applied quite restrictively by the Swiss courts.[69] But independently of this question, the 'reaping without sowing' argument is too unspecific to justify trade secret protection unless there are particular reasons why the unauthorized exploitation of *undisclosed* information should be treated differently from the use of disclosed information which, according to most jurisdictions, everyone is free to use – even if he or she saves own efforts by using it.

4.2 The Policies of Reverse Engineering

The case of reverse engineering differs fundamentally from the 'classical' cases of trade secret protection. Unlike the 'unfaithful' employee, a person who buys a product in the open market is not under a contractual duty of confidence, if we leave aside the specific problem of mass-market licences in the software sector. And unlike the industrial spy the analyst does not enter a competitor's premises by unlawful means. Reverse engineering can only be regarded as a violation of trade secret law if 'breaking into a product'[70] is equivalent to breaking into someone else's factory. The arguments which were advanced in favour of trade secret protection must be tested in this context.

First, arguments based on the idea of 'business privacy' fail. The product is ready; it has left the internal sphere of its producer and is readily available in the market. There is no need for concealed trial and error experiments any more.

Secondly, the reference to 'standards of commercial honesty' does not help to resolve the problem either. Reverse engineering seems to be common practice in some industries; there is no generally accepted rule according to which reverse analysis would be dishonest. Whereas an employee may be under a duty to do his contractual duties in a spirit of good faith, the purchaser of a product acquires it as his own property. Although property may be superseded by intellectual property rights, such restrictions on the owner's exclusive right to his property require a better justification than the mere reference to 'dishonesty'.

Thirdly, the economic implications of reverse engineering have been analyzed in a seminal article by *Pamela Samuelson* and *Suzanne Scotchmer*.[71] They point out

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[68] *See* Section 4 No. 9 German Act against Unfair Competition. For a discussion of the relationship between protection against 'unfair copying' and intellectual property law *see* KÖHLER, Das Verhältnis des Wettbewerbsrechts zum Recht des geistigen Eigentums – Zur Notwendigkeit einer Neubestimmung auf Grund der Richtlinie über unlautere Geschäftspraktiken, 2007 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 548; OHLY, Designschutz im Spannungsfeld von Geschmacksmuster-, Kennzeichen- und Lauterkeitsrecht, 2007 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 731.

[69] *See* HILTY, "Leistungsschutz" – made in Switzerland? – Klärung eines Missverständnisses und Überlegungen zum allgemeinen Schutz von Investitionen?, in: AHRENS/BORNKAMM/KUNZ-HALLSTEIN (eds), Festschrift für Eike Ullmann, 643 *et seq.* (2006).

[70] Expression owed to DREYFUSS/KWALL, Intellectual Property, 818 (1996).

[71] SAMUELSON/SCOTCHMER, *supra* note 2.

that reverse engineering is costly and time-consuming, at least in traditional manufacturing industries and in the field of software.[72] Thus, to some extent the producer of the original product is protected against competitors who reverse engineer, because it has a lead time in the market and because the costs of reverse engineering allow the original manufacturer to recoup its research and development expenses.[73] *Samuelson* and *Scotchmer*, however, are prepared to allow an exception for cases in which reverse engineering is simple and cheap. In this case the imitator saves the expenditure for the development of the original product without having to incur much investment into discovering the information and can therefore undercut the original manufacturer's prices. Thus, 'insofar as market-destructive effects can be demonstrated, it may be economically sound for the law to restrict a market-destructive means of reverse engineering and reimplementation for a period of time sufficient to enable the innovator to recoup its R&D expenses'[74].

Finally, while the manufacturer of the original product wishes to ban all types of reverse engineering in order to protect its know-how and in order to prevent copying, the original manufacturer's interest may be counterbalanced by the public interest in disseminating technological knowledge.[75] Reverse engineering is an important source of information, both in 'traditional' industries and in the field of software. It has even been suggested that the collection and publication of technical information which is not protected by an intellectual property right may be protected by constitutional rights such as the right to free speech[76] and the right to freedom of research. Where reverse engineering is carried out for the purpose of developing a new, improved product, a ban on reverse engineering would hinder innovation. But even where reverse engineering only serves to provide the information for cheap copying, the economic effects may be at least partly positive, since such copying tends to break up monopolies and to reduce market prices.

On balance it turns out that a total ban on reverse engineering would be too blunt an instrument. It would serve to protect technical subject-matter indefinitely and without the formal and substantive safeguards of patent law. But there may be a case for distinguishing between 'good' and 'evil' reverse engineering or between reverse engineering itself and the use of the information so acquired.[77] The first option has been realized in copyright law. In the US the courts have allowed reproduction in the course of decompilation or disassembly where it was necessary to achieve fair purposes such as achieving interoperability or allowing a program to operate under a different operating system. The European rule is more restrictive, but it is also purpose-based: decompilation is allowed when and if it is carried out in order to achieve interoperability. The disadvantage of purpose-based rules, however, is that they result in legal uncertainty and consequently to increased costs of judicial

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[72] *Id.*, at 1590.
[73] *Id.*, at 1590.
[74] *Id.,* at 1594.
[75] LANDES/POSNER, *supra* note 10, at 370; CORNISH/LLEWELYN *supra* note 25, para. 8-20.
[76] SAMUELSON, *supra* note 53, at 782 *et seq.* .
[77] *See* also the five possible ways to regulate reverse engineering proposed by SAMUELSON/SCOTCHMER, *supra* note 2, at 1652 *et seq.*

administration[78] if they are open-textured or that they are too narrow to cover all cases where the permission of reverse engineering is socially advantageous. A model for the second and probably superior alternative can be found in the provisions protecting semiconductor chip layouts: reverse engineering as such is allowed, but the sale of copied chips is prohibited.

4.3 Consequence: The German Doctrine Reconsidered

It is very difficult to find good arguments for banning reverse engineering as such. When balancing the original manufacturer's interest in keeping the maximum of its know-how secret and the analyst's interest in gathering additional information, intellectual property policy tips the scales in favor of the latter. Since one of the purposes of patent law is to disseminate technological knowledge and since copyright law does not protect ideas, there seems to be a *prima facie* case for allowing the discovery of information. While the freedom to gather information is limited by trade secrets law, none of the principal reasons for trade secret protection applies here: a person who buys a product in the open market and takes it apart is not under a specific duty of confidence, and the secluded internal sphere of the original manufacturer's business is not interfered with.

The issue of reverse engineering should not be confused with the question of whether the law should protect product manufacturers against unfair copying. Whoever copies a competitor's product by means of a technical reproduction process saves the costs of research and development. The cheaper and faster it is to reproduce, the less the innovator is able to recoup its own research and development costs. Intellectual property legislation reacts by granting limited property rights in intangible subject matter which remedy this market failure by allowing the right owner to charge prices which are higher than the marginal costs of copying. Such statutes are economically sound if the welfare effects of enhancing innovation outweigh the dead-weight loss which is the consequence of monopoly pricing.

As pointed out above, the question of whether the law should grant flexible protection against copying beyond the confines of the intellectual property system is highly disputed. The fact, however, that reverse engineering has been used in order to obtain the information necessary for imitating the original product does not add any new aspects to this discussion. Since no convincing reasons for banning reverse engineering as such can be identified, reverse engineering must be treated like any other technical reproduction process such as 'plug moulding' or 3D scanning. Much confusion has been caused in German law because the Reichsgericht mixed up both issues in the 'boot iron press' case.[79] Apparently the court was impressed by the fact that considerable investment and high engineering skills had gone into the construction of the machine. On the other hand the Reichsgericht did not attach any weight to the fact that the product had been patented and that patent protection had expired more than 30 years ago. In effect the court protected a complex product against

[78] LANDES/POSNER, *supra* note 10, at 371.
[79] *Stiefeleisenpresse, supra* note 3.

'slavish imitation' after the limited period of amortisation which is granted by a patent had elapsed. The result is not only an open conflict with patent law policy. It also runs counter to the economic insight that producers of complex products have a natural lead time in the market and thus arguably need less protection against copying than the producers of products the manufacturing principle of which is easy to find out.[80]

Whenever unfair competition law overlaps with intellectual property rights it must respect the formal and substantial limits of intellectual property law. Whereas this rule is largely respected by the German courts when they apply the doctrine of unfair copying now codified by Section 4 No. 9 Act against Unfair Competition,[81] they have neglected this issue in trade secret cases. The fact that trade secrets are predominantly protected by criminal law provisions has encouraged this formalism. Whereas flexibility is the strength of unfair competition law, Section 17 of the Act against Unfair Competition has been interpreted in accordance with the strict rules governing the interpretation of criminal statutes: formally information which can only be discovered by means of reverse engineering is still 'undisclosed' and the generally accepted grounds of justification fail.

There are two possible ways of allowing a more nuanced approach to reverse engineering in German law. Either information embodied in products which are freely available is not classified as secret, or reverse engineering is not considered as unfair. The second alternative is more convincing, since secrecy is a predominantly factual concept, whereas the notion of 'fairness' is entirely normative. Factually, information which can only be discovered by means of an expensive and lengthy analysis can hardly be considered as 'disclosed' or 'readily available'. But in normative terms this is not the end of the matter. According to Section 17 UWG, the information must be disclosed or exploited 'without due cause' ('*unbefugt*'). This notion should be interpreted, in accordance with Art. 39 TRIPS,[82] as meaning 'contrary to honest commercial practices'. This will allow a balancing exercise which takes into account the interests of the owner of the information of the person interested in obtaining it and of the general public. The result is that reverse engineering should be permissible in general, whereas the use of the information that is obtained may be restricted.

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[80] *See* text at *supra* note 73.

[81] *See*, for example, Federal Supreme Court (Bundesgerichtshof, BGH) of December 2, 2004, 2005 GRUR 349 – *Klemmbausteine III*, but see also the critical remarks by OHLY, Klemmbausteine im Wandel der Zeit – ein Plädoyer für eine strikte Subsidiarität des UWG-Nachahmungsschutzes, in: Festschrift Ullmann, *supra* note 69, at 795.

[82] While Art. 1 TRIPS allows WTO Members to implement in their law more extensive protection, such protection must not contravene the provisions of the Agreement. Arguably, per-se-protection of trade secrets regardless of whether they have been disclosed or obtained in a way contrary to honest practices would contravene Art. 39 TRIPS, although this seems to be a moot point.

5. Conclusion

Reverse engineering is not unfair. Curiosity is one of the driving forces behind innovation. It should not be restricted, at least as long as the information is not obtained by a breach of confidence or by an interference with the internal sphere of a business. Intellectual property law by and large does not restrict the access to information. While the law of trade secrets does prevent the access to undisclosed information, it only provides protection against *unfair* disclosure or exploitation; in this respect trade secret protection is a genuine part of unfair competition law. There should be no general presumption that obtaining a secret outside relations of confidence is unfair as such. Rather, the broad notion of 'fairness' or 'honest practices' allows a balancing exercise which takes into account the interests of the owner of the information of the person interested in obtaining it and of the general public.

On this basis, US law has long accepted reverse engineering as a fair means of discovering information. In German law the conflict between trade secret protection and intellectual property protection has not been fully recognized by the courts and many commentators yet, but the statutory provisions are broad enough to allow the necessary balancing exercise. Whether the use of the information so obtained as a 'springboard' for identical copying is permissible is a different matter. The answer to this question should not distinguish between copying enabled by reverse engineering and imitation by means of other technical reproduction measures. When it comes to determining whether the law should prevent 'unfair copying', however, legislations and courts should keep in mind a central proposition of the *Bonito Boat* judgment:[83] both reasonable protection of innovation and freedom of imitation are the lifeblood of a competitive economy.

[83] *Bonito Boats*, *supra* note 11, at 141.

Negotiations on the Accession to the EU and the Harmonization of Intellectual Property with the *acquis communautaire* in Light of Globalization

Igor Gliha

1. Introduction

Development of technologies and of society leads to trade with no territorial boundaries, practically turning the world into a single market. In these circumstances ideological limitations in individual legal systems have been gradually reduced and are no more an obstacle to the cross-border trade between national systems. Today, it is hard to imagine modern trade within the boundaries of a single state. These conditions caused the phenomenon called globalization. Globalization is one of those modern terms with several meanings and of frequent usage. For some, this notion has a positive connotation and for the others the notion is all about the irreversible path to the pure consumer's society with no diversity at all. Not wanting to diminish the importance of this notion, or its multi-leveled meaning, it seems that globalization, at least from the legal point of view, could be reviewed in terms of equalizing the business standards in different legal systems to make it possible for foreign undertakings to run their businesses in the same manner in different countries. The experiences so far show that such equalization produces the loss of some specific national qualities but also produces material wealth.

Achieving the state of equalization of business standards in a legal system does not always have to be only on the formal level. In some cases equalization is due to some powerful market participant. Especially in small markets large and powerful multinational companies are in a position to impose their business conditions which even may not be in accordance with the legal system of a respective state. As the matter is about private law relations, the other party often accepts also the conditions to which, in the framework of a national legal system, it would not have to settle for. But on the other hand, in order to do business with the company at hand, it should adhere to its business terms or will not do business at all (take-it-or-leave-it principle). Even when such operations violate the national *ius cogens*, often there are no legal consequences in that regard because the other part (national partner) frequently finds it more useful to do business with a 'globally recognized player' than to claim protection (and succeed), and therefore lose the desirable partner.[1] The need to be part of global market where particular participants are already well established and are therefore in the position to impose the rules, also involves accepting the rules that exist also as the rules of autonomous law. However, non-institutional globalization is not sufficient for the participants in the global market because there is always a risk that some participant will file a claim for respecting the rules of the national legal system, and eventually succeed with it. This could encourage other participants to do

so as well and threaten the well-established business operations of multinational companies. Therefore the wish of participants in the global market for formal rules regulating business environment at the global level is fairly understandable.

2. The Impact of Globalization on Intellectual Property Law

The process of globalization sometimes calls into question some traditional principles that intellectual property is based on. The principle of territoriality of intellectual property is one of them. In accordance with this principle intellectual property rights are regulated and function within national state borders. The need to standardize, or at least to bring closer types as well as content of particular rights in the group of intellectual property was shown back in the XIXth century, and the unification was achieved through commonly accepted international conventions.[2] However, in spite of the unification, many particularities, which are present anyway in regulating private power in individual legal systems, still persist.[3] For example, one difference relates to the limitations in copyright law – whereas in the Anglo-American copyright system this right is freely transferable, in *droit d'auteur* legal systems, to the extent that they are grounded on the dualistic concept of copyright, only the patrimonial component of copyright is freely transferable (French, Italian, Swiss law, etc.), while in the legal systems based on the monistic concept the copyright is not transferable as such (German, Austrian, Croatian law, etc.). Until modern times such differences, deriving from different traditions and even legal cultures, were not a great obstacle to running businesses. But, modern multinational companies require more – they demand for their operations to be run everywhere according to the same principles. In other words, they do not accept to be limited by territorial rules. The

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[1] Self-restraint of the actually weaker party tends to cross the limits set in individual legal systems. For example, an author who wants to deal with a particular publisher (because of his reputation in a particular field) will accept all the conditions that this publisher imposes regardless of the state and which are created on regular bases according to the legal system of the publisher's home country and which provide him with the complete control over the work. If, in such a case, this relation is regulated also in the author's home country but in a manner that provides the author with certain rights regarding her work, even than the author would rarely do something to keep the control over her work, which control he could not lose in compliance with the rules of the respective state.

[2] The international conventions which are even today bases to the intellectual property rights: the Paris Convention for the Protection of Industrial Property (1883), the Berne Convention for the Protection of Literary and Artistic Works (1886), the Madrid Agreement Concerning the International Registration of Marks (1891).

[3] Even within the associations of countries with developed system of harmonization of legal orders, such as European Union, full unification of private law is still not acceptable because of different principles on which national private laws are based on. Differences in regulation of private law power in particular legal systems of Member States are so huge that the attempts to realize the unique codex of civil law have so far failed to result with the solution acceptable to the traditions of certain Member States. This is not strange, because legal systems of Member States do not even appertain to the same legal circle, the majority belongs to the Continental-European legal circle, but some are from the common law legal tradition. Within the Continental-European legal tradition the sub-systems of the German, Roman or Scandinavian tradition can be distinguished.

principle of territoriality, along the need for global solutions, also faces difficult challenges. One of it is certainly the Internet and use of IP protected content online (in addition to copyright, also trademarks in particular can be used in the online world), *i.e.* use which is not related to territory, not in the traditional sense anyway. The second challenge concerns the above mentioned requirement of the multinational companies not to be limited by the rules of a certain territory.

The principle of territoriality is linked to the sovereignty of the State also in intellectual property matters. This bond can be seen, for example, regarding registered rights (*e.g.* trademarks, patents, geographical indications) in the fact that registration of the right and its effects is valid only in the country that has recognized them. International conventions in the field of intellectual property, back from the XIXth century, recognize this principle, and they aim at establishing the international system which will enable the holders of particular intellectual property rights to have their rights acknowledged in as many as possible different countries.[4] In accordance with this principle the holders of the intellectual property rights enjoy the rights that are recognized in the country concerned. The harmonization of the intellectual property law has precisely been grounded on the principle of territoriality – in accordance with these conventions the member/contracting states were obliged to recognize national treatment to foreigners (the same treatment as their own nationals enjoy). At the same time, international conventions define minimum standards of protection – so-called minimum rights – to be accorded by the members or contracting states to the nationals of the other parties.

3. Harmonization of the EU Intellectual Property Law to Establish the Single Market

3.1 In General

Although the notion of globalization itself implies that the matter relates to the entire globe, it can nevertheless be seen in the light of harmonization of legislation of different legal systems. Therefore also regional associations and regional harmonization of law present one kind of globalization and are a step to full globalization. Today, probably the most developed system of harmonization of different law systems is the one related to the establishment of internal market in the EU. This single market at the moment includes 27 EU Member States together with Norway, Iceland and Liechtenstein as the States of the European Economic Area (EEA).[5] In light of this the legal systems of all of these countries have been harmonized in order to establish a level playing field of undertakings with regard to the market freedoms. It is true however, that this is not globalization in the full meaning of the word, but only harmonization

[4] The principle of territoriality has been the basis of international conventions on the intellectual property law, starting from the oldest – the Paris Convention for the Protection of Industrial Property (1883), the Berne Convention for the Protection of Literary and Artistic Works (1886), and up to the latest – such as the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs), the WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty (1996).

[5] Agreement on the European Economic Area, [1994] OJ L 1; Amendments, [1995] OJ L 86, [2004] OJ L 130, [2007] OJ L 221

within a closed union of States; nevertheless the process of harmonization in the EU is also characteristic for what can be observed in the process of globalization.

The single European market has been realized through four basic freedoms: the free movement of people, goods, services and capital (market freedoms). On the single market there is no discrimination, and all participants, either natural or legal persons, regardless of their nationality, enjoy the same position when realizing any of the fundamental freedoms. Limitations of fundamental freedoms are to be reduced to the minimum and regulated as to limit the market freedoms to the lesser possible extent, and provided that the purpose the limitation is striving to achieve could not be realized by the less restrictive measures. As regards intellectual property law, the provisions of the EC Treaty do not interfere with the domestic property systems. This is due to the provision of Art. 295 which prescribes: 'This Treaty shall in no way prejudice the rules in Member States governing the system of property ownership.' The notion of property ownership is very broadly interpreted and it embraces all patrimonial rights including intellectual property, and it implies the regulation of patrimonial rights including the constitutional guarantees, their content and limitations, protection and social bounds.[6] However, Art. 295 EC does not completely exclude the Community's influence on the intellectual property because no matter of how the national legal systems regulate it, it has to be exercised in accordance with the EC Treaty and the Community goals. Differentiation between the notion of existence of rights and of the exercise of rights in this sense has been expressed regarding the field of intellectual property in the European Court of Justice decisions in *Centrafarm vs. Sterling* and *Centrafarm vs. Winthrop*.[7] In accordance with the doctrine of differentiation between the existence of rights and the exercise of rights the Community started to influence, with the aim of establishing and preserving the internal market, the intellectual property law by harmonizing national laws but only to the extent necessary for the protection and realization of the internal market. In achieving this goal the intellectual property law or parts thereof could not have been systematically regulated, but only particular intellectual property institutions and only to the extent necessary to achieve the aim of protecting and establishing the internal market. Although oriented only to the realization and protection of the internal market the *acquis communautaire* in the field of the intellectual property has substantially developed. As the regulation of the EU intellectual property has its goal in the protection and establishment of the internal market, so the principle of territoriality has been kept, although it has been, in certain aspects of the execution of individual rights, expanded to the territory of the Community. In that regard comes along the issue of exhaustion, *i.e.* the issue concerning the territorial limits of a right holder's particular right, or in which moment the right holder is not empowered anymore to prohibit certain activities of third persons who legally acquired IP-protected goods. Under the exhaustion doctrine the defined exclusive right regarding specific use – distribution in particular

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[6] CALIES/RUFFERT, Kommentar zu EU-Vertrag und EG-Vertrag, 2111 (2002); LENZ, EG-Vertrag, Kommentar zu EU-Vertrag, 1978 (1999); JOSIPOVIĆ, Pravni promet nekretnina u Europskoj uniji – prilagodba hrvatskog pravnog poretka europskom, 8 (2003).

[7] Case C-15/74, *Centrafarm v. Sterling*, [1974] ECR 1147; Case C-16/74, *Centrafarm v. Wintrop*, [1974] ECR 1183.

– ceases to exist regarding the particular good. The rights exhaust only in respect to the specific good (protected by copyright, related rights, a patent, a trademark, industrial design, topographies of semiconductor products) that has been legally placed on the market by the respected right holder or with her consent. For some registered rights there is, as an option to national registration, the possibility of registering a Community right (Community trademark and Community design[8]), while regarding patents such a Community system is still in need of being adopted.

Accession of a country to the EU means the expansion of the Community market and calls for the harmonization of the legal system of accession country which frequently causes numerous changes to the national legal system.

3.2 Harmonization of the National Legal Order Regarding Intellectual Property in Order to Join the EU

Croatia is among the states which see their future in the EU. After the last wave of enlargement which included 12 countries, it seems that Croatia is next in line to join the Union, and as far as it seems now, not accompanied by some other country. According to economic and legal criteria, Croatia is progressing more than some of the countries that joined the Union in the last round. However, due to some difficulties in the mentioned enlargement it has been facing more comprehensive evaluation of its capability to harmonize and also more difficult requirements, because the EU is trying to avoid further enlargement problems – which is also the case with intellectual property. The greater attention in the negotiation process in the field of intellectual property can be noticed in the fact that, unlike the last enlargement wave when the intellectual property chapter was included in the chapter of company law, for Croatia intellectual property has been classified in the independent negotiation chapter entitled 'Chapter 7 Intellectual Property Law.'

Croatia is as of June 18, 2004, a Candidate Country for EU membership. Harmonization of the Croatian legal system in the field of intellectual property with the *acquis communautaire* started several years before Croatia acquired the Candidate Country status. Pursuant to Art. 71 of the Stabilization and Association Agreement (SAA) between the EU and its Member States and the Republic of Croatia of October 29, 2001,[9] Croatia committed itself to harmonize intellectual property as a priority area.[10] In compliance with the SAA, Croatia was obliged to achieve 'adequate

[8] Note that Council Regulation (EC) No. 6/2002 of 12 December 2001 on Community designs, [2002] OJ L 3, p. 1, also provides for the possibility of acquiring an unregistered Community right.

[9] Official Gazette International Agreements No. 14 of December 27, 2001.

[10] It is interesting that Croatia was obliged to harmonize the intellectual property even before the SAA entered into force. Namely, in order for the SAA to enter into force, it should have been approved by all parties in accordance with their own procedures, these being the European Community, the European Coal and Steel Community, the European Atomic Energy Community as well as all 15 member states which procedure required substantial time (it entered into force on February 1, 2005). Therefore the Interim Agreement between the Community and Croatia was simultaneously concluded to bolster the application of the SAA provisions related to trade and trade-related matters, in particular those on the free movement of goods and transport. The Interim Agreement could be concluded, pursuant to the EU rules, only between Croatia and the European Community which speeded up the ratification since it referred only to trade-related issues. The Interim Agreement was in force from January 1, 2002 until the SAA entered into force.

and effective protection and enforcement of intellectual, industrial and commercial property rights,'[11] and to achieve 'necessary measures in order to guarantee a level of protection of intellectual, industrial and commercial property rights similar to that existing in the Community, including effective means of enforcing such rights.' This commitment included the alignment of regulations on the intellectual property, the acceptance of obligations stemming from certain international multilateral agreements but also the efficient implementation and the environment in which the rights can be effectively exercised.

The accession negotiations between Croatia and the EU started on October 3, 2005, and the Chapter on intellectual property was one of the first to be negotiated on, namely in February 2006. Negotiations of candidate states with the EU are not real negotiations in the full meaning of this word. In the course of negotiations it is actually established whether the candidate country's legal system corresponds to the *acquis communautaire* and whether the candidate fulfills in general the conditions for entering the EU. For candidates, it is essentially a matter of agreeing on how and when to adopt and implement EU rules and procedures. Therefore, as the very description of the status quo of EU law, the *acquis communautaire* is not negotiable. A country who wants to join the European Union has to accept the *acquis communautaire* that is accepted in all Member States. The negotiation process is in fact all about confirming whether the candidate country's legal system is in line with the *acquis.* It is possible to negotiate only on the potential postponement of the application of the *acquis* for a certain period of time including the period after the accession to the EU.[12]

The negotiations between Croatia and the EU have been conducted in several phases for each chapter. The negotiations for each chapter are preceded by an analytical overview (screening), consisting of two phases: First, during an explanatory phase the representatives of the European Commission explain in detail the *acquis* which will be the object of negotiations and they provide an analytical overview of

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[11] The notion of 'intellectual, industrial and commercial property' is defined in the Joint Declaration concerning Article 71 where the parties agree that this notion includes in particular copyright, including the copyright in computer programmes, and neighboring rights, the rights relating to databases, patents, industrial designs, trademarks and service marks, topographies of integrated circuits, geographical indications including appellation of origins, as well as protection against unfair competition as referred to in Article 10bis of the Paris Convention for the Protection of Industrial Property, and protection of undisclosed information on know-how.

[12] The *acquis communautaire* as the scope of rights and obligations that connect all EU Member States has to be accepted also by candidate states prior to their accession to the EU. They have to accept the entire *acquis*, the primary legislation (treaties with all revisions, amendments, protocols and annexes, association agreements and alike) and secondary legislation comprising of legal acts passed by the competent bodies pursuant the authority provided for in the primary legislation. These are in the form of regulations, directives, decisions, recommendations and opinions, as well as all other sources of law in the form of decisions of the European Court of Justice, general principles of law, international treaties concluded by the EU and other acts such as resolutions, declarations, recommendations, guidelines, joint actions, joint positions, *etc.* which are not binding on the Member States, *i.e.* there is no coercion mechanism for the Member Sates to accept them, but they rather stand for the European Commission intention related to exercising its authorities (soft law).

the *acquis* thereby introducing the candidate state to the subject matter of negotiations (also called bilateral screening). In the second phase, namely the analytical phase of the screening of the Croatian legislation for its alignment with the EU *acquis* in the field of intellectual property Croatia presented the state of affairs in this field, envisaged changes and its view on the current non-alignment of the Croatian intellectual property law with the *acquis*.

After gaining independence in 1991, Croatia paid a lot of attention to legislation in the field of intellectual property which resulted in completely new laws in that particular field.[13] Given that in drafting these new laws a lot of attention was paid to its alignment with the *acquis communautaire*, the negotiation process did not show substantial departures of Croatian law from EU standards. Nevertheless, some changes primarily related to the single market were held to be required.

One of the most significant changes in respect to joining the single market relates to the issue of exhaustion, *i.e.* transforming the national exhaustion principle into the principle of European exhaustion. At the moment of the Croatian accession to the EU the national exhaustion of copyright and related rights[14] regarding the distribution right shall extend to the territory of the EU. In accordance with the current state of affairs the right of distribution is exhausted for the territory of Croatia with the first legal transfer of ownership on a good incorporating subject matter protected by copyright or a related right (national exhaustion). After such transfer the right holder is no longer entitled to authorize or to prohibit any further distribu-

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[13] Copyright is regulated by the Copyright and Related Rights Act of 2003, OG 167/2003, 79/2007 and by the Regulations on the Professional Criteria and Procedures for Granting Authorizations for Performing Collective Management of Rights and on Remunerations for the Work Done by the Council of Experts (OG 72/2004). Patents are regulated by the Patent Act of 2003, OG 173/2003, 87/2005, 76/2007 and the Patent Regulations (OG 117/2007). The Production, Repair and Transactions of Arms and Military Equipment Act (OG 33/2002, 173/2003) and the Regulation on the Criteria for Determining the Patent as Confidential and on the Manner of Recognizing the Patent for such Invention (OG 10/2005) deal with the special provisions on patents that are considered confidential. Trademarks are regulated by the Trademarks Act of 2003, OG 173/2003, 76/2007 and Trademark Regulations (OG 117/2007). Industrial designs are regulated by the Industrial Design Act of 2003, OG 173/2003, 76/2007 and Industrial Design Regulations (OG 72/2004, 117/2007). Geographical indications are regulated by the Geographical Indications and Designations of Origin of Products and Services Act of 2003, OG 173/2003, 76/2007 and Regulations on Geographical Indications and Designations of Origin of Products and Services (OG 72/2004, 117/2007). Topographies of Semiconductor Products are regulated by the Protection of Topographies of Semiconductor Products Act of 2003, OG 173/2003, 76/2007 and by the Regulations on the Protection of Topographies of Semiconductor Products (OG 72/2004, 117/2007). Particular questions on the registration fees and representation in the industrial property are regulated by the Act on the Representation in the Field of Intellectual Property Rights (OG 54/2005), the Act on the Administrative Fees in the Field of Intellectual Property Rights (OG 64/2000, 160/2004, 187/2004) and by the Ordinance On Special Charges and Charges for Information Services Provided by the State Intellectual Property Office (OG 86/2000, 160/2004, 187/2004).

[14] Croatian law recognizes the following related rights: performer's rights, producers of phonograms rights, producers of videograms rights, broadcasting organization's rights, producers of databases rights and publisher's rights

tion[15] of this good within the Republic of Croatia, but the right holder does not lose her distribution right in Croatia if she decides to sell the good in any territory outside Croatia. The law needs to be amended in the sense that the right holder will lose the right to authorize or prohibit further distribution of a good once it is placed by the right holder or with her authorization anywhere in the entire single European market. The provision on exhaustion is of general nature, and relates to all copyrighted works and protected subject matter of related rights regarding the right of distribution.

While for the copyright and related rights it is prescribed that only the distribution right – just as one of several rights of the right holder – is exhausted with the first placement consented by the right holder on the market, for the industrial property rights (patents, trademarks, industrial designs, topographies of semiconductor rights) the Croatian legislature provided for the exhaustion of 'the exclusive rights conferred.'[16] Such wording might lead to an interpretation that all exclusive rights of each of these rights are exhausted, but it should be borne in mind that the exhaustion relates only to a particular good which incorporates the protected subject matter.

Further significant changes relate to the impact of the existing Union rights for the Croatian territory. In that sense the Community Trade Mark (CTM) registered or applied for prior to the date of Croatia's accession to the EU will automatically expand to Croatia at the moment of its accession to the EU. Accordingly, as of the moment of the accession CTMs are regarded as a pre-existing right in relation to trademarks applied for nationally after the moment of acquiring full membership. At the same time, this asks for the preservation of rights of national right holders acquired before the accession to the EU and for the possibility of prohibiting the use of CTMs whose effect would automatically expand to the territory of Croatia in case of conflict with such rules. It will also be ensured that the use of such CTMs can be prohibited in the territory of the Republic of Croatia if there is an absolute reason why their registration could have been rejected or why they could be declared null and void under Croatian law even before accession. The priority of a nationally registered trademark before accession will be possible only if national registration has priority over the CTM.

The same is holds true for the Community Design registered or applied for before the date of Croatia's accession to the EU.

In order to harmonize with the *acqui communautaire* Croatia introduced the supplementary protection certificate (SPC). The term of a patent may be extended by a SPC for a period which elapsed between the filing date of a patent application and the date of the first marketing authorization for the product, reduced by five

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[15] This does not relate to rental and import or export which the right holder continues to be entitled to authorize or prohibit. He cannot prohibit public rental, but is entitled to remuneration. The right of rental, export, import and public lending are not exhaustible.

[16] The same wording has been used in all the provisions on exhaustion. For patents in Art. 66 of the Patent Act, for trademarks in Art. 11 of the Trademarks Act, for industrial design in Art. 20 of the Industrial Design Act and for topographies of semiconductor rights in Art. 17 of the Act on the Protection of Topographies of Semiconductor Products.

years, but in total not exceeding five years, counted from the date when the SPC took effect.

The Croatian pharmaceutical industry, which relies on the production of generic pharmaceuticals, faces considerable negative effects from the introduction of the SPC into the Croatian legal system. The production of generic pharmaceuticals is delayed for the time extended by the SPC. However, due to the fact that the application of the SPC has been postponed for 5 years, the Croatian pharmaceutical industry has time to adjust to the SPC system.

Interesting questions that appeared during the negotiation relate to the collective cross-border management in the field of online music services. In the EU this issue has not been part of the *acquis communautaire*, but it is obviously of interest to the EU. The European Commission on that question issued the Commission Recommendation of 18 October 2005 on collective cross-border management of copyright and related rights for legitimate online music services[17] and, some time earlier, the Communication on the Management of Copyright and Related Rights in the Internal Market[18] These documents advocate the cross-border management (collective licensing of the copyrights and related rights, collecting royalty fees and distribution thereof) by individual collective management societies (hereinafter: CMS) established in the Member States. These rules are the new challenge for the principle of territoriality. *A recommendation* is for Croatia to be introduced as a part of the *acquis communautaire*. Given that this is soft law, the rules on the collective management are not obligatory for the Member States. However, during the negotiations it was indicated to Croatia that its legislation entails no solutions envisaged in the *Recommendation*. This view was substantiated by the importance of the environment which enables the efficient functioning of CMS for the assessment of the level of alignment of the implementation of copyright and related rights. The issue of cross-border collective management has been realized in practice, but the factual solution is still to come, regardless of the globalization trend accepted in the *Recommendation* which was severely criticized. Although the negotiations on the Intellectual Property Chapter have not yet been closed, and therefore all potential changes in the *acquis communautaire* would influence the negotiations, it looks like that globalization trends in the collective management would not (as yet) influence the EC. Therefore, Croatia will be able to keep the rules on the collective management strictly based on the principle of territoriality.

4. Concluding Remarks

Intellectual property has an important place in the negotiations on the accession to the EU regardless of the fact that the provisions of the EC Treaty do not interfere with the Member States' legal systems. No matter how the national legal systems

[17] [2005] OJ L 276, p. 54; Corrigendum, [2005] OJ L 284, p. 10.

[18] Communication of 16 April 2004 from the Commission to the Council, the European Parliament and the European Economic and Social Committee – The Management of Copyright and Related Rights in the Internal Market, COM(2004) 261 final.

regulate intellectual property it should not be exercised to hamper the realization and protection of the internal market. A greater significance of intellectual property can be seen in the fact that it was, in the last enlargement wave, included in the chapter of the company law, while for Croatia intellectual property has been classified in an independent negotiation chapter on intellectual property law. The principle of territoriality as one of the basic principles of the intellectual property law is not jeopardized by the accession to the EU, although the exercise of the intellectual property is often extended to the territory of the single market. The most significant changes in the Croatian intellectual property law due to accession to the EU are exactly related to territorial limits. In particular, the question of exhaustion of the distribution right or corresponding right concerning goods containing the protected subject matter of the intellectual property rights after they were legally put into the market for the first time is specifically emphasized. After the accession to the EU, right holders will no longer be able to control further distribution of IP-protected goods, be it by exports to other EU Member States or by imports from such States to Croatia, provided that the right holder at least authorized the first sale. Furthermore, the Community trademarks and Community designs registered or applied for prior to the date of Croatia's accession to the EU will automatically extend to Croatia at the moment of its accession to the EU.

Cross-border Injunctions in Patent Litigations Following the ECJ Decision in GAT v. LuK – Life after Death?

Klaus Grabinski

1. Introduction

In the absence of a Community patent, patents in Europe are national rights. This is even true with regard to the European patent which, after grant by the European Patent Office, splits up into a bundle of national patents.

National patents have to be enforced before national courts. With no currently existing European patent litigation system the situation is not different for the national parts of a European patent. As long as the infringing acts take place only in one European state, the patent holder will bring his or her action before a court of that state. But what possibilities exist when infringing acts occur in more than one state? Of course, the patent holder can sue for each patent infringement on a state-to-state basis. But would it not be more attractive to refer all parallel infringement actions to one single court? The advantages of such cross-border litigation are obvious. The legal costs would be less. The patent holder could choose the speediest and most experienced court. In addition, contradictory decisions would be avoided.

The legal basis for cross-border litigation in the European Union is Council Regulation (EC) No 44/2001 that came into force on March 1, 2002 (Brussels I Regulation).[1] The Regulation was preceded by the Brussels Convention of 1968.[2] The Brussels Convention was and the Brussels I Regulation is complemented with regard to the EFTA states by the Lugano Convention.[3]

Article 2(1) of the Brussels I Regulation[4] provides that persons domiciled in a Member State shall be sued in the courts of the Member State. In the case of a company or other legal person it is the statutory seat, the central administration or the principal place of business that determines the general jurisdiction.[5] It has been gen-

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[1] Council Regulation (EC) No 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters, [2001] OJ L 12, p. 1.

[2] Convention of September 27, 1968 on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters, [1978] OJ L 304, p. 36. The Convention was amended several times on the accession of new Member States to the EU. The amendments do not concern the provisions relevant to this article.

[3] Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters done at Lugano on 16 September 1988. A revised version, adapting the Lugano Convention to the Brussels I Regulation, was signed on October 30, 2007, but has not entered into force yet.

[4] Article 2(1) of the Brussels I Regulation has the same wording as Article 2(1) of the Brussels Convention and Article 2(1) of the Lugano Convention.

[5] Article 60(1) Brussels I Regulation; Article 52(1) Brussels Convention, Article 52(1) Lugano Convention.

erally accepted that patent litigations concerning only the infringement of a patent fall within the scope of Article 2(1) of the Brussels I Regulation.[6] This means that claims for the infringement of parallel German, Dutch and Italian patents against an Italian company can be handled by an Italian infringement court. But will the Italian court lose its competence to decide with regard to the infringement of the Dutch and the German patent when the defending Italian company challenges the validity of these patents?

The question has to be answered in light of Article 22(4) of the Brussels I Regulation.[7] Article 22 reads as follows:

> The following courts shall have exclusive jurisdiction, regardless of domicile:
>
> …
>
> 4. in proceedings concerned with the registration or validity of patents, trade marks, designs, or other similar rights required to be deposited or registered, the courts of the Member State in which the deposit or registration has been applied for, has taken place or is under the terms of a Community instrument or an international convention deemed to have taken place.
>
> Without prejudice to the jurisdiction of the European Patent Office under the Convention on the Grant of European Patents, signed at Munich on 5 October 1973, the courts of each Member State shall have exclusive jurisdiction, regardless of domicile, in proceedings concerned with the registration or validity of any European patent granted for that State.

It is generally accepted that actions for the invalidation of a patent with an *erga omnes* effect are covered by Article 22(4) Brussels I Regulation (Article 16(4) Brussels Convention). But is the same true when validity is raised as a defense or a counterclaim in a pending patent infringement action like in the aforementioned example, or by way of an action for the declaration of non-infringement that affects only the parties of the proceedings?

Prior to the decision of the ECJ in *GAT v. LuK* the answer to the question differed depending on where the patent holder commenced proceedings. Dutch and German courts took the view that a court having jurisdiction in cross-border infringement litigation, for instance pursuant to Article 2(1), does not lose its competence when the defendant calls the validity of the patent into question.[8] English and Belgian courts, however, ruled that a cross-border action for infringement has to be dismissed when validity is raised as a defense or a counterclaim.[9] Professor

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[6] Case C-288/82 – *Duijnstee v. Goderbauer*, [1983] ECR 3663 paras 25 and 26; Case C-4/03 – *GAT v. LuK*, [2006] ECR I-6509, para. 16; Jenard Report, [1979] OJ C 59, p. 1, 36.

[7] Article 16(4) Brussels Convention had the same wording.

[8] BERTRAMS, Das grenzüberschreitende Verletzungsverbot im niederländischen Patentrecht, 1995 Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil (GRUR Int.) 193, 198, referring to Dutch case law; District Court (*Landgericht*) of Düsseldorf, 1996 Entscheidungen der Instanzgerichte zum Recht des geistigen Eigentums (InstGE) 1, 4 – *Reinigungsmittel für Kunststoffverarbeitungsmaschinen*; 1998 InstGE, 3, 5 – *Kettenbandförderer III*.

[9] *Fort Dodge v. Akzo Nobel*, Court of Appeal 29 IIC 927, 931 (1998); *Coin Controls v. Suzo International*, High Court, [1997] 3 All ER 45; *Rhöm Enzyme*, Tribunal de Première Instance de Bruxelles (Brussels Court of First Instance) of May 12, 2000, 32 IIC 571 (2001) (English translation).

Joseph Straus, to whom this article is dedicated, described the situation as the 'thorny life under the Brussels and Lugano Convention'.[10]

Contradictory case law is never satisfying. Thus, several attempts of national courts were made to refer the question to the ECJ,[11] which has the last say when Community Law is to be interpreted. However, each time the parties reached a settlement before a decision could be handed down. The first reference to the ECJ that was not withdrawn before time was the reference of the Düsseldorf Court of Appeal in the *GAT v. LuK* case.

2. The GAT v. LuK Decision

The facts of the case were as follows: Both parties had their registered office in Germany and were competitors in the field of automobile technology. GAT bid for a contract to supply mechanical damper springs to a motor vehicle manufacturer, also having its registered office in Germany. LuK held seven patents in different European states. LuK alleged that its patents were infringed by the springs subject to GAT's bid and informed the motor vehicle manufacturer about this allegation. GAT was not pleased and brought an action for the declaration of non-infringement before the Düsseldorf District Court, claiming that the spring did not infringe the patents and that the patents were invalid.

The Düsseldorf District Court considered that it had international jurisdiction to adjudicate, but dismissed the action for the declaration of non-infringement. The court held that the two French patents were infringed and not invalid. With regard to the other patents the court decided to take expert evidence.

On GAT's appeal the Düsseldorf Court of Appeal (*Oberlandesgericht*) decided to stay the proceedings and referred the question to the ECJ whether Article 16(4) Brussels Convention (now Article 22(4) Brusssels I Regulation) also covers patent infringement proceedings in which the question of validity is raised by way of an action or a plea in objection.

After Advocate General Geelhoed handed down his opinion on September 16, 2004, the ECJ ruled on July 13, 2006, that Article 16(4) is to be interpreted as meaning that the rule of exclusive jurisdiction laid down therein concerns all proceedings relating to the registration or validity of a patent, irrespective of whether the issue is raised by way of an action or a plea in objection.[12]

The decision came as a surprise with regard to the Jenard Report, which is the first official report on the Brussels convention, and the *Duijnstee v. Goderbauer* decision, which was the only previous ruling of the ECJ on Article 16(4) Brussels Convention before the court's decision in *GAT v. LuK*. In the Jenard Report it is

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[10] STRAUS, Patent Litigation in Europe – Setting the Scene, in: European Commission (Ed.), Patents as an Innovative Tool – Patinnova '99 – Proceedings of the 5th European Congress on Patents 285, 295 (2000).

[11] *Fort Dodge v. Akzo Nobel,* Court of Appeal, 29 IIC 927, 933 (1998); KARET, Questions about Patent Construction, 20 EIPR 76, 80 (1998).

[12] Case C-4/03 – *GAT v. LuK*, [2007] ECR I-6509, para. 32.

noted that the matters referred to in Article 16(4) 'will normally be the subject of exclusive jurisdiction only if they constitute the principal subject-matter of the proceedings of which the court is to be seised'.[13] That is not the case when validity is called into question only by way of a defense.[14] It can also be taken from the Jenard Report that Article 16(4) provides for 'exclusive jurisdiction in proceedings concerned with the validity of patents' because 'the grant of a national patent is an exercise of national sovereignty'.[15] This justifies exclusive jurisdiction with regard to proceedings that directly affect the grant of the patent as an act of national sovereignty, but cannot be extended to proceedings in which the validity is not directly concerned with regard to third parties. Consequently, the Jenard Report makes it clear that 'other actions, including those for infringement of patents, are governed by the general rules of the Brussels Convention'.[16] In *Duijnstee v. Goderbauer* the ECJ explicitly referred to these citations from the Jenard Report and added that these explanations confirm the 'restrictive character of Article 16(4).[17]

In G*AT v. LuK*, however, the ECJ advocates a broader construction of Article 16(4) arguing that the courts in the Contracting State of registration are best placed to adjudicate upon the validity and the effects of patents that have been issued by that State because they apply their own national law.[18] This reasoning does not reflect the scheme of the Convention. In many provisions of the Convention, the courts of one Contracting state are required to apply the national law of other Member States. According to the general rule laid down in Article 2(1), a person can be sued before the courts of the Contracting State where she or he is domiciled, irrespective of whether the law of another Member State is applicable.[19] The argument that national courts are best suited to apply their own national law is in particular not convincing in the field of patent law where national law has been harmonized to a high degree and where European patents exist that are governed by the European Patent Convention in all Contracting States alike.[20]

According to the ECJ, exclusive jurisdiction is also justified by the fact that the issue of patents necessitates the involvement of the national administrative authorities.[21] This argument relates to the Jenard Report where it is rightly mentioned that the grant of a national patent is an exercise of national sovereignty. However, national sovereignty is at stake when the plaintiff seeks the invalidation of the granted patent. As long as validity is only challenged implicitly by way of a defense the administrative act as such is not affected.

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[13] Jenard Report, *supra* note 6, 34.

[14] *Cf.* HEINZE/ROFFAEL, Internationale Zuständigkeit für Entscheidungen über die Gültigkeit ausländischer Immaterialgüterrechte, 2006 GRUR Int. 787, 791.

[15] Jenard Report, *supra* note 6, at 36.

[16] *Id.*, at 36.

[17] Case C-288/82 – *Duijnstee v. Goderbauer*, [1983] ECR 3663, para. 23.

[18] Case C-4/03 – *GAT v. LuK*, [2007] ECR I-6509, para. 22.

[19] KUR, A Farewell to Cross-Border Injunctions? The ECJ Decisions GAT v. LuK and Roche Nederland v. Primus and Goldenberg, 37 IIC 844, 848 (2006).

[20] *Cf.* BUKOW, Die Entscheidung GAT/LUK und ihre Konsequenzen, in: Festschrift für Tilmann Schilling 59, 66 (2007); HEINZE/ROFFAEL, *supra* note 14, at 794.

[21] Case C-4/03 – *GAT v. LuK*, [2007] ECR I-6509, para. 36.

The ECJ further argues that:

- to allow a court seized of an action for infringement or for a declaration that there has been no infringement to establish, indirectly, the invalidity of the patent at issue would undermine the binding nature of the rule of jurisdiction laid down in Article 14(4);
- the possibility of circumventing Article 16(4) would have the effect of multiplying the heads of jurisdiction and would undermine the predictability of the rules of jurisdiction and the principle of legal certainty; and
- it would also multiply the risk of conflicting decisions.[22]

These reasons reflect mainly the situation that an infringement court (e.g. in the country of the defendant's registered office) and the validity court in the country of registration decide differently upon the validity of the patent. Even though the risk of conflicting decisions cannot be completely denied it seems to be overestimated. The defendant in a pending infringement proceeding before the court of a state different from the state of registration can always lodge a parallel action for the invalidation of the patent before the court in the state of registration and then solicit the infringement court to suspend the hearing until the court of the state of registration has determined the validity of the patent.

The final argument in *GAT v. Luk* concerns the legal effects of a judgment indirectly ruling on the validity of a patent. LuK and the German government brought forward that according to German law such a ruling would be limited to the parties of the proceeding. The ECJ, however, did not consider the risk of contradictory decisions eliminated because in several other Contracting States a decision to annul a patent would have an *erga omnes* effect.[23] In this context the ECJ did not discuss whether it would be appropriate to interpret Article 16(4) Bussels I Regulation and Article 22(4) of the Brussels Convention in a way that it limits the effects of a judgment dealing with the validity of a patent only as an incidental matter to the parties of the infringement litigation irrespective of whether the national law of the infringement court attributes an *erga omnes* effect to such a judgment. According to this approach the rule taken from Aricle 16 (4) of the Brussels Convention (Article 22(4) Brussels I Regulation) would be that only the courts of the state of registration would have jurisdiction to decide on the validity with an *erga omnes* effect, while courts that have jurisdiction on the patent infringement litigation, for instance, pursuant to Article 2(1) can decide on the validity but only as an incidental matter limited to the parties of the proceeding. Contradictory decisions would have been avoided.[24] A respective (clarifying) amendment of Article 22(4) has now been pro-

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[22] *Id.*, at paras 26-29.

[23] ECJ, *id.*, at para. 30.

[24] ADOLPHSEN, Renationalisierung von Patentstreitigkeiten in Europa, 2007 Praxis des Internationalen Privatrechts (IPRax) 15, 18; KUBIS, Patentverletzungen im europäischen Prozessrecht – Ausschließliche Zuständigkeit kraft Einrede, 2007 Mitteilungen der deutschen Patentanwälte (Mitt.) 220, 223.

posed by the European Max Planck Group for Conflicts of Laws in Intellectual Property (CLIP), a renowned group of scholars.[25]

3. Consequences of GAT v. LuK for Cross-border Patent Litigations

The decision of the ECJ in *GAT v. LuK* is binding for the national courts in the European Union, irrespective of all criticism.[26] Therefore, it is of predominant relevance to ascertain the consequences of the decision in *GAT v. LuK* for a pending infringement proceeding once the defendant has challenged the validity of the patent. Two approaches have been proposed insofar.

One opinion advocates that the infringement action becomes inadmissible as soon as the invalidity of the patent has been asserted by way of defense or a counterclaim. The infringement court has to decline jurisdiction pursuant to Article 19 of the Brussels I Regulation. This view has been taken by the District Court of The Hague[27] and authors from England,[28] Germany[29] and the Netherlands.[30]

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[25] *See* TORREMANS, Exclusive Jurisdiction and cross-border IP (patent) infringement: Suggestions for amendment of the Brussels I Regulation, 29 EIPR 195 (2007). CLIP proposes the following amendments.

The following courts shall have exclusive jurisdiction, regardless of domicile ...

(a) in proceedings which have as their object the registration or validity of patents, trade marks, designs, or similar rights required to be deposited or registered, the courts of the Member State in which the deposit or registration has been applied for, has taken place or is under the terms of a Community instrument or an international convention deemed to have taken place. Without prejudice to the jurisdiction of the European Patent Office under the Convention on the Grant of European Patents, signed at Munich on October 5, 1973, the courts of each Member State shall have exclusive jurisdiction, regardless of domicile, in proceedings which have as their object the registration or validity of any European patent granted for that State.

(b) The provisions under lit. (a) do not apply where validity or registration arises in a context other than by principal claim or counterclaim. The decisions resulting from such proceedings do not affect the validity or registration of those rights as against third parties.

[26] *Cf.* BUKOW, *supra* note 20, 64; HEINZE/ROFFAEL, *supra* note 8, 787; HOYNG, Noot bij Roche v Primus en GAT v LUK, available at <http://www.boek9.nl/getobject.aspx?title=w.a._hoyng_l022-primus-gatluk-def1.doc> (as of March 2008), p. 4; KUBIS, *supra* note 24, at 222; KUR, *supra* note 19, at 847.

[27] The Hague District Court, October 19, 2006, 06-1082 – *Van Kempen v. Kuipers*; August 9, 2006, 06-167 – *Sisvel v. Sandisk*, cited from BISSCHOP, Aktuelles aus den Niederlanden – Cross Border lebt, 2007 Mitteilungen der deutschen Patentanwälte (Mitt.) 247, 249.

[28] WARNER/MIDDLEMISS, Patent Litigation in multiple jurisdictions: An end to cross-border relief in Europe, 28 EIPR 580 (2006).

[29] ADOLPHSEN, *supra* note 24; BUKOW, *supra* note 20, at 70; HEINZE/ROFFAEL, *supra* note 14, at 796; HERR, EuGH erteilt grenzüberschreitenden Patentverletzungsverfahren eine Absage, 2006 Mitteilungen der deutschen Patentanwälte (Mitt.) 481, 482; KUBIS, *supra* note 29, at 224; TESCHEMACHER/STAUDER, 2006 Bardehle Pagenberg IP Report, IV, 1.

[30] BISSCHOP, *supra* note 27, at 249.

In a recent judgment, however, the Hoge Raad, the Supreme Court of the Netherlands, decided differently.[31] The Hoge Raad held that the infringement court does not lose jurisdiction regarding the infringement claim even if the validity of the patent is challenged by the defendant in whatever way. According to the Hoge Raad the infringement court is at liberty to stay the infringement proceedings pending a judgment to be solicited from the foreign court competent pursuant to Article 16(4), only if the claimant wishes to do so. If the claimant, however, does not want the matter to be stayed, the infringement court must deny the claim since it lacks the jurisdiction to consider an aspect of the dispute that is required for granting the infringement claim. The decision of the Hoge Raad refers to the opinion of Advocate General Geelhoed in the GAT v. Luk case in which it was suggested that once the invalidity had been challenged in a patent infringement proceeding, the infringement court could refer the case, suspend the hearing until the court that is competent pursuant to Article 16(4) has decided on validity, or – in case of an abuse by the defendant – render a final decision.[32]

The ruling of the Hoge Raad does not address the consequences for the infringement proceedings in cases where the defendant challenges validity before the infringement court without lodging an action for the invalidation of the patent before the court of registration. It is not clear on what legal basis Advocate General Geelhoed made his suggestion that the case could be referred to the court competent pursuant to Article 16(4) when validity has been raised by the defendant. The Regulation does not provide for such a rule, and the same seems to be true for the national laws of the Member States. It should also be remembered that the ECJ's case law is generally very restrictive towards allowing abuse to be considered when assessing jurisdiction.[33] With this in mind, it is hard to imagine a case in which, as the Advocate General further suggested, the infringement court could render a final decision with regard to an abuse on the defendant's side. It does certainly not suffice assuming an abuse just because the invalidity defense has been raised without lodging a parallel action for the invalidation of the patent or the invalidity defense is asserted on weak reasons.

Which way should be followed then? It should be recalled that the national law of some Member States provides that infringement and validity are dealt with in the same proceeding before the same court. According to the national law of other Member States infringement and validity are dealt with in different proceedings before different courts. The defendant cannot challenge the validity of the patent before the infringement court. The essence of the respective national law of the disputed patent whether the invalidity argument (in whatever form) is available within

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[31] Hoge Raad, November 30, 2007, C02/228HR, C02/280HR, *Roche v. Primus*, <http://www.delex.nl/jurisprudentie.aspx?alias=BA9608> (as of January 2008); similar: ADOLPHSEN, *supra* note 24, at 19; HOYNG, *supra* note 26, at 4; NAGEL/GOTTWALD, Internationales Zivilprozessrecht, para. 197 (6th ed. 2007).

[32] Advocate General GEELHOED, Opinion of September 16, 2004, Case C-4/03 – *GAT v. LuK*, [2006] ECR I-6509, para. 46.

[33] *Cf.* Case C-116/02 – *Gasser v. MISAT*, [2003] ECR I-14693; Case C-159/02 – *Turner v. Grovit*, [2004] ECR I-3565, para. 28.

the infringement proceedings has to be respected by the infringement court that has jurisdiction on a cross-border patent infringement case, for instance, pursuant to Article 2(1), since this court is required to apply the national law of the disputed patent like an infringement court of the state of registration.[34]

This means that in a cross-border patent infringement case a court that has jurisdiction with regard to the infringement claim pursuant to Article 2(1) but has no jurisdiction with regard to validity pursuant to Article 16(4) Brussels Convention (Article 22(4) Brussels I Regulation) loses its jurisdiction on the infringement claim when the defendant challenges the validity of a patent that is governed by a national law providing simultaneous proceedings on infringement and validity before the same court. The situation is different when the defendant, for whatever reason, does not challenge validity within in the infringement proceedings but exclusively lodges an action for the invalidation of the patent before the court of the state of registration. In this case the infringement court may suspend the hearing until the court of the state of registration has decided on the validity issue.

If, however, the patent is determined by a national law that provides separate proceedings for infringement and validity, the validity cannot be called into question by the defendant in the infringement proceedings. Consequently, Article 16(4) Brussels Convention (Article 22(4) Brussels I Regulation) in the interpretation of the ECJ is not applicable. When the defendant wants to challenge the validity he has no alternative but to commence invalidation proceedings before the competent court in the state of registration. The court before which the cross-border infringement proceedings are pending has to decide whether the hearing on the infringement issue is to be suspended with regard to the parallel invalidation proceedings according to the law of the dipsuted patent.

For instance, the Italian court before which an Italian company has been sued for the infringement of a German patent pursuant to Article 2(1) remains competent even if the Italian company challenges the validity of the German patent during the infringement proceedings. This is because according to German law the invalidity defense is not available and, consequently, Article 16(4) Brussels Convention (Article 22(4) Brussels I Regulation) in the interpretation of the ECJ is not concerned. When the Italian company files a nullity action with regard to the patent-in-suit before the Bundespatentgericht, the Italian court has to decide whether to suspend the hearing according to the respective provision in German law. The case is different when the disputed patent is, for instance, a UK patent. UK law provides that infringement and validity are dealt with simultaneously before the same court. This means that when the Italian company challenges the validity of the UK patent in the infringement proceedings before an Italian court, the Italian court has to dismiss the claim pursuant to Article 25 since its jurisdiction on the infringement claim has been removed. The Italian court may suspend the hearing if the defendant commences invalidation proceedings before the UK court, but does not challenge the validity of the patent in the proceedings before the Italian court.

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[34] In case of a European patent: the state for which the patent has been granted.

4. Consequences of GAT v. Luk for Cross-border Interim Injunctions

International jurisdiction with regard to interim injunctions is governed by Article 31 which sets forth that applications may be made to the courts of a Member State for such provisional, including protective, measures as may be available under the law of that State, even if, under the Regulation, the courts of another Member State have jurisdiction as to the substance of the matter. Since Article 31 does not mention any exemption from this rule the provision should also be applied with regard to the exclusive jurisdictions laid down in Article 22, including Article 22(4).

The District Court of The Hague accepted to have jurisdiction in a cross-border case in which the plaintiff asked for an interim injunction, alleging that the relevant German patent had been infringed, and in which the defendant did not only deny an infringement but also challenged the validity of the German patent by way of a defense. The District Court took the view that the interim relief judge in the Netherlands in a case like this can only make a preliminary judgment in form of an assessment of the chances of that invalidity defense with which the exclusive field of Article 22(4) is not entered, as nothing final regarding the validity according to how foreign law is established.[35]

The situation is similar under German procedural law which is applicable in preliminary proceedings pursuant to Article 31. According to Section 937(1) German Code of Civil Procedure the court that is competent to decide a case on the merits is also competent to issue a preliminary injunction. Thus, a German company can be sued for the infringement of an Italian patent before the court that according to German procedural law would be also competent to decide on the merits. That is, for instance, the court where the German company has its principal place of business pursuant to Sections 12 and 17 German Code of Civil Procedure.

Since the German court only assesses the validity of the patent on a preliminary basis as part of its decision-making in interim relief proceedings the scope of Article 22(4) does not seem to be concerned. In particular, there is no risk of irreconcilable judgments because the court does not adjudicate on the validity of the patent with final effect.[36]

On request of the defendant, the court can order that the plaintiff who obtained a preliminary injunction has to institute proceedings leading to a decision on the merits within a period determined by the court. If the plaintiff does not comply with the order the court has to revoke the preliminary injunction upon request of the

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[35] The Hague District Court, September 21, 2006, 266720/KG ZA 06-694, *Bettacare v. H3*, <http://www.book9.nl/book9.aspx?id=3396> (as of January 2008); *cf.* BISSCHOP, *supra* note 27, 248.

[36] Of course, an interim injunction can only be issued when all regular requirements (including the "urgency" [Dringlichkeit] requirement according to German procedural law) have been complied.

defendant.[37] If the plaintiff intends to comply he or she can commence infringement proceedings before the court that issued the injunction. In the aforementioned example this would be the German court where the defendant has its principal place of business, since this court has also jurisdiction in proceedings leading to a decision on the merits pursuant to Article 2(1). However, the decision to institute infringement proceedings before this court does not seem to be foresighted with regard to the ECJ's ruling in *GAT v. Luk*. The German court would lose jurisdiction as soon as the defendant challenges validity what is admissible in patent infringement proceedings according to Italian law. Therefore, it is definitely a better choice for the plaintiff in the aforementioned example to institute the infringement proceedings that lead to a decision on the merits before an Italian court. The Italian court has jurisdiction on the infringement claim pursuant to Article 5(3) Brussels I Regulation and will have jurisdiction on the validity pursuant to Article 22(4) Brussels I Regulation should the defendant raise that issue.

5. Conclusion

'Cross-border' is not completely dead after the ECJ decision in *GAT v. LuK*. But the thorny life under the Brussels I Regulation and the Lugano Convention[38] has become even more thorny. The number of cases in which 'cross-border' is still working has significantly been reduced. In proceedings that lead to a decision on the merits cross-border patent infringement litigation can still be commenced, when the plaintiff – for whatever reason – can expect that the defendant will not challenge the validity of the patent, at least not within the pending infringement proceedings. Or when the law of the disputed patent does not allow the defendant to call the validity of the patent into question and, consequently, *Gat v. LuK* does not apply. Interim cross-border injunctions also remain possible.

Irrespective of these loopholes, the situation is anything but satisfactory. In the vast majority of cases, parallel patents that are infringed in several states will have to be enforced on a state-by-state basis. Europe deserves a better patent litigation system!

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[37] Sec. 926 German Code of Civil Procedure. This provision is similar to the rule laid down in Article 9(5) Directive 2002/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, [2004] OJ L 195, p. 16.

[38] *Cf.* Straus, *supra* note 10, at 295.

Contractual Liability of the Seller Due to Third Parties' Patents and Other IP Rights under German Law and the UN Convention on Sales Contracts

Paul Katzenberger

1. German, European and International Laws on Sales Contracts

1.1 German Law on Sales Contracts

In Germany, sales contracts are generally regulated by Sections 433 through 479 of the German Civil Code (*Bürgerliches Gesetzbuch*, BGB). Complementary provisions in the German Commercial Code (*Handelsgesetzbuch*, HGB) (Sections 373 through 381) refer to commercial transactions. Furthermore, with respect to sales contracts connected with the law of a foreign state the conflict of laws provisions of Articles 27 through 37 of the German Introductory Act to the Civil Code (*Einführungsgesetz zum BGB*, EGBGB) have to be taken into account.

Recently the general German law on sales contracts was fundamentally revised by the Law on the Modernization of the Law of Obligations of November 26, 2001,[1] resulting in the abovementioned provisions of the German Civil Code. The revision came into force on January 1, 2002. In principle, according to Article 229 Section 5 EGBGB, the new provisions only apply to sales contracts entered into since this date. The following statements refer to such contracts only.

1.2 European Law on Sales Contracts?

Revision of the German law on sales contracts was triggered by the Directive 1999/44/EG of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees.[2] The Directive was transformed into German Law by the aforementioned Act of November 26, 2001.

However, this Directive only deals with sales contracts concerning tangible movable items as consumer goods concluded by a consumer for his private purposes as the buyer on the one hand and a seller selling consumer goods in the course of his trade, business or profession on the other hand.[3]

Other European Directives refer to contracts in general, including sales contracts. Particularly worth mentioning are the following ones:

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1 [2001] Bundesgesetzblatt (BGBl.) (Federal Law Gazette) I, p. 3183.
2 [1999] OJ L 171, p. 12.
3 Article 1(2)(a) to (c) of the Directive.

- Council Directive 85/577/EEC of 20 December 1985 to protect the consumer in respect of contracts negotiated away from business premises;[4]
- Council Directive 87/102/EEC of 22 December 1986 for the approximation of the laws, regulations and administrative provisions of the Member States concerning consumer credit; last amended by Directive 98/7/EC;[5]
- Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts;[6]
- Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts;[7]
- Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce)[8] and
- Directive 2000/35/EC of the European Parliament and of the Council of 29 June 2000 on combating late payment in commercial transactions.[9]

Apart from the two last mentioned Directives all of the aforementioned Directives exclusively refer to sales contracts and other contracts agreed upon with consumers in their capacity as private persons and acting for purposes which are not related to their trades, businesses or professions. Therefore, consumer protection is the aim of those Directives. Certainly, the two last mentioned Directives reach beyond this aim, but they only work on certain aspects of contract law: their conclusion by electronic means and failure to pay in due time.

The cited European Directives dealing only with some aspects of contracts show that, within the European Union with its 27 Member States, until now there is no harmonized law on sales contracts or on the law of obligations as a whole.[10] However, preparatory work for a European Civil Code has been initiated.[11]

In contrast to contracts law as such a European harmonization of the law of conflict of laws on contractual obligations has already been reached nearly thirty years ago by the European Convention on the law applicable to contractual obligations of June 19, 1980.[12] Germany approved this Convention by Act of July 25, 1986;[13] the Convention came into force in Germany on April 1, 1991.[14] The provisions of the Convention were transformed into German law by the already mentioned Articles 27 through 37 of the Introductory Act to the German Civil Code.

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4 [1985] OJ L 372, p. 31.
5 [1987] OJ L 42, p. 48; [1998] OJ L 101, p. 17.
6 [1993] OJ L 95, p. 29.
7 [1997] OJ L 144, p. 19.
8 [2000] OJ L 178, p. 1.
9 [2000] OJ L 200, p. 35.
10 *See* HEINRICHS, in: PALANDT, Bürgerliches Gesetzbuch, Einleitung, note 32 (67th ed. 2008).
11 *Id.*, at note 33.
12 [1980] OJ L 266, p. 1; for the most recent development *see infra* note 97.
13 [1986] BGBl. II, p. 809.
14 [1991] BGBl. II, p. 871.

1.3 The UN Convention on the International Sale of Goods (CISG)

A considerable international unification of the law on sales contracts was reached by the United Nations Convention on contracts for the international sale of goods of April 11, 1980,[15] the so-called CISG. This abbreviation is in use in Germany, too. Germany approved the Convention by Act of July 5, 1989.[16] The Convention came into force on January 1, 1988; for Germany it became effective on January 1, 1991.[17] On January 1, 2008 the Convention was binding upon 66 States.[18] Besides Germany, parties to this Convention *inter alia* are the following Member States of the European Union: Austria, Belgium, the Czech Republic, Denmark, France, Hungary, Italy, the Netherlands, Poland, Spain and Sweden, but not *e.g.* the United Kingdom. Other parties to the Convention with considerable international sales of goods are Australia, Canada, the People's Republic of China, the Russian Federation, Switzerland and the United States of America.

1.4 Scopes of and Relationship between German Law and the UN Convention

1.4.1 Applicability of German law on Sales Contracts to Sales of Any Kind

German law on sales contracts is applicable to all kinds of sales: *i.a.* sales of movable and immovable property, sales of consumer goods (Sections 474 to 479 BGB), sales of rights (Section 453 BGB) and sales by and between merchants (Section 373 to 381 HGB).

From the point of view of applicable law, German law on such contracts without further ado applies to German internal contracts if not otherwise agreed upon by the parties to a contract. Furthermore, German law is also applicable if the rules of the law on conflict of laws lead to German law as the proper law of the contract. This particularly applies to export and import transactions of German undertakings.

If a German court would have to judge such a transaction it would start from the above (1.1) mentioned German rules of Articles 27 through 37 EGBGB (applicability of the conflict rules of the *lex fori*).[19] According to these provisions German law on sales contracts apply if the parties agree to subject the contract to this law (Article 27 EGBGB). In principle the parties are free to choose the law applicable to the whole or a part of the contract (Article 27(1) 3rd sentence). In case of lack of such a choice, German law has to be applied if the sales contract is most closely connected with Germany (Article 28(1) 1st sentence). It shall be presumed that the contract is most closely connected with Germany if the Party who is to affect the characteristic performance has, at the time of conclusion of the contract, his or her habitual residence or, in the case of a corporation, a society or a body corporate, its central

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[15] [1989] BGBl. II, p. 588.
[16] [1989] BGBl. II, p. 586.
[17] [1990] BGBl. II, p. 1477.
[18] [2008] BGBl. II, Fundstellennachweis (source index) B, p. 690 *et seq.*
[19] *See* SONNENBERGER, in: Münchener Kommentar zum Bürgerlichen Gesetzbuch, Band 10, EGBGB Art. 1-46, Internationales Privatrecht, Einleitung IPR, note 275 (4th ed. 2006).

administration or, dependent on several circumstances, its principal or other place of business here (Article 28(2) 1st and 2nd sentence). With respect to a sales contract the seller effectuates the characteristic performance.[20]

From this it follows that German law on sales contracts applies to export transactions of German sellers unless the parties to respective contracts agreed to subject them to another law, such as the law of the country where the buyer has his habitual residence or its central administration or place of business, respectively. In case of import transaction applicability of German law on sales contracts depends on a respective choice of (German) law by the parties.

1.4.2 Limited Applicability of the UN Convention

The UN Convention, compared with the general German law on sales contracts, is applicable only to a limited scope. It does not apply to sales of goods bought for personal, family or household use, unless the seller neither knew nor ought to have known such use (Article 2(a)). Therefore, in the following, sales of consumer goods for uses of that kind as comprised by German and European law (*see supra* 1.2 and 1.4.1) will no longer be dealt with.

The UN Convention also does not deal with sales of rights, but only with sales of goods as tangible movable items (Article 1(1)).[21] Furthermore, it only lays down rules on the conclusion of sales contracts and on rights and obligations of sellers and buyers, but not on the validity of contracts or of any of their provisions or of any usage (Article 4(a)). It does also not deal with the effects which sales contracts may have on the property in the goods sold (Article 4(b)).

Besides that, the scope of application of the UN Convention is restricted by its Article 1: It does not apply to mere domestic but only to international sales contracts.[22] The necessary international character is brought about by the requirement that the parties to sales agreements must have their places of business or their habitual residence in different states (Articles 1(1) and 10(b)). This has to appear either from the contract or from any dealings between, or from information disclosed by, the parties at any time before or at the conclusion of the contract (Article 10(2)).[23] If this requirement is met, the Convention applies when the respective states either are Contracting States (Article 1(1)(a)) or when the rules of private international law (conflict of laws) lead to the application of the law of a Contracting State (Article 1(1)(b)).

With respect to the latter, from the point of view of German (and European) law on conflict of laws, it can be referred to the explanation given *supra* at 1.4.1.:

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[20] *Id.*, Art. 28, note 136.

[21] *See* MAGNUS, in: STAUDINGER Kommentar zum Bürgerlichen Gesetzbuch, Wiener UN-Kaufrecht (CISG), Art. 1, note 42 (revised ed. 2005); FERRARI, in: SCHLECHTRIEM/SCHWENZER, Kommentar zum Einheitlichen UN-Kaufrecht – CISG – , Art. 1, notes 34 and 36 (4th ed. 2004); WESTERMANN in: Münchener Kommentar zum Bürgerlichen Gesetzbuch, Vol. 3, Art. 1 CISG, note 6 (5th ed. 2008).

[22] Instead of all *see* MAGNUS, *id.*, at note 3.

[23] For details *see* MAGNUS, *id.*, at notes 72 *et seq.*; FERRARI, *supra* note 21, at notes 48 *et seq.*; WESTERMANN, *supra* note 21, at notes 12 *et seq.* .

According to this, for instance, the Convention is applicable to an export transaction between a German exporter and an importer in the United Kingdom, the latter not being a Contracting State of the Convention. In this case application of the Convention would be excluded only if the parties subjected their sales contract to British law or the law of another Non-Contracting State. If no law was chosen by the parties, all export transactions of a German seller would be subject to the application of the UN Convention.[24]

1.4.3 Relationship between German Law and the UN Convention

By virtue of the German Act of July 5, 1989 (*see supra* 1.3), the UN Convention has been transformed into German law. Its rules are self-executive and characterized as international uniform law. They claim precedence over the general domestic German law on sales contracts which, by virtue of its law on conflict of laws, also can be applicable to international sales transactions (*see supra* 1.4.1). This precedence has been acknowledged by the German Federal Supreme Court[25] and can be derived from Article 3(2) 1st sentence EGBGB[26] or is postulated as a general principle in favor of precedence of international uniform law over the law on conflict of laws.[27]

However, precedence of the UN Convention does not hinder the parties to such a contract from excluding the application of the Convention or, subject to certain rules regarding the form of the items dealt with in Article 12, from derogating from or vary the effect of any of its provisions. Also an implicit, partial or subsequent exclusion of the Convention is possible.[28] If the parties to a sales contract, in the meaning of the law on conflict of laws, choose the law of a Non-Contracting State, as a rule, this results in an exclusion of the international uniform law.[29] However, applicability of this law is not excluded by the mere fact that the parties choose the application of 'German law' because the rules of the UN Convention are parts of German law.[30]

From the exclusion of the applicability of the Convention, it follows that the general domestic law on sales contracts, such as the general domestic German law

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[24] *See* MAGNUS, *id.*, at note 93; *see* also *id.* at notes 108 *et seq.* regarding the possibility of Contracting States to declare not to be bound by Article 1(1)(b) CISG. For instance the US and China availed themselves of this possibility, but Germany did not do so. For the consequences for Germany *see* Article 2 of the German Act of July 5, 1989, (*supra* 1.3) and MAGNUS, *id.* at Art. 2 VertragsG zum CISG, note 7.

[25] Decision of December 11, 1996, 134 Entscheidungen des Bundesgerichtshofs in Zivilsachen (BGHZ) (official collection of leading decisions of the German Federal Supreme Court) 201, 206.

[26] *See* FERRARI, *supra* note 21, Vor Art. 1-6, note 34; WESTERMANN, *supra* note 21, Vor Art. 1 CISG, notes 1, 6 *et seq.*

[27] FERRARI, *id.*; *see* also MAGNUS, *supra* note 21, Einleitung zum CISG, note 34.

[28] *See* MAGNUS, *supra* note 21, Art. 6, note 23.

[29] *See* MAGNUS, *id.* at note 23; FERRARI, *supra* note 21, Art. 6, note 31.

[30] *See* Federal Supreme Court, decision of July 23, 1997, 1997 Neue Juristische Wochenschrift (NJW) 3309, 3310.

on sales contracts including its law on conflict of laws (*see supra* 1.1 and 1.4.1) applies.[31]

2. Liability of the Seller and Remedies of the Buyer in Case of Delivery of Defective Goods

When, in 2001, German law on sales contracts was revised (*see supra* 1.1) the legislature followed the model of the warranty provisions of the UN Convention.[32] This resulted in a far-reaching parallelism of regulations in both legal systems on the obligations of the seller and the remedies of the buyer. However, this does not exclude considerable differences regarding several details. In the following, only the most important principles can be presented.

2.1 Obligation of the Seller to Deliver Goods Free of Defects

According to German law on sales contracts, the seller is obligated to hand over the sold item to the buyer and to transfer ownership free of any defect as to quality and of title (Section 433(1) BGB). This corresponds with the obligation of the seller according to the UN Convention to deliver goods which are of the quality required by the contract (Article 35(1) CISG) and free from any right or claim of a third party (Articles 41 and 42(1) CISG).

2.2 Liability of the Seller for Defects as to Quality or of Title, Exclusion of Liability, Prescription

From the obligation of the seller to deliver the sold goods free of any defect, it follows that the seller, in case of such defect, will be held contractually liable for breach of duties or obligations.[33]

2.2.1 Legal Exclusion of Liability of the Seller

Domestic German law excludes liability of the seller for defects as to quality as well as of title if, at the time of conclusion of the contract, the buyer is aware of the defect (Section 442(1) 1st sentence BGB). The same is true if the buyer, owing to gross negligence, is unaware of the defect and the seller fraudulently concealed the defect or guaranteed the condition of the sold item (Section 442(1) 2nd sentence BGB).

According to the UN Convention the corresponding exclusion is regulated differently with respect to defects as to the quality of sold goods, on the one hand, and as to their exemption from rights and claims of third parties on the other hand. In

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[31] *See* MAGNUS, *supra* note 21, Art. 6, note 58.

[32] *See* the official reasoning of the Law of November 26, 2001, Deutscher Bundestag, Drucksache (BT-Drucks.) (printed matter of the German Lower House of Parliament) 14/6040, p. 86.

[33] For German law *see* WESTERMANN, *supra* note 21, § 433 BGB, note 2; for the 1980 United Nations Convention *see* MAGNUS, *supra* note 21, Vorbemerkungen zu Art. 45 *et seq.*, note 3; Art. 45, notes 29 *et seq.*

case of a defect as to quality, liability of the seller is excluded if, at the time of the conclusion of the contract, the buyer knew or could not have been unaware of the defect (Article 35(3) CISG). The latter alternative has to be understood in the sense of unawareness because of gross negligence.[34] This provision is more stringent to the detriment of the buyer than the corresponding rule in domestic German law because, with respect to an exclusion of the seller's liability, it does not provide for additional requirements on the part of the seller. In general, there is a reverse situation in case of a defect resulting from a right or claim of a third party. In such a case, liability of the seller is excluded only if the buyer agreed to take the goods subject to that right or claim (Article 41 1st sentence CISG). This means that liability of the seller is excluded only if the buyer knew the right or claim and, nevertheless, consented to take the sold goods. Knowledge alone or mere (gross) negligence of the buyer does not exclude the seller's liability.[35]

Unlike general German law on sales contracts, but similar to German law regarding commercial sales (Section 377 Commercial Code), Articles 38 and 39 CISG, with respect to a defect as to the quality of sold goods, provide for an obligation of the buyer to examine the goods and, in case of a lack of conformity of the goods with the contract, to give notice to the seller. With respect to a defect resulting from a right or claim of a third party the buyer only has to give notice (Article 43(1) CISG). If the buyer acts in breach of these obligations, he or she loses the right to rely on the lack or defect (Section 377(2) to (4) HGB, Article 39 and 43(1) CISG). According to German law (Section 377(5) HGB) the latter does not happen if the seller fraudulently concealed the defect. Article 40 CISG however, with respect to defects as to the quality of a sold good, provides for the same result if the seller knew them or, again in the meaning of gross negligence,[36] could not have been unaware of them and did not disclose them to the buyer. With respect to a defect due to a right or a claim of a third party only knowledge is detrimental to the seller (Article 42(2) CISG).

2.2.2 Exemptions of the Seller from Liability

In addition to the aforementioned exclusion of liability of the seller Articles 79 and 80 CISG provide for so-called exemptions. According to the respective principle as laid down by Article 79(1) CISG the seller *i.a.* is not liable for a failure to perform his obligations to deliver goods free of defects[37] if he proves that the failure was due to an impediment beyond his control and that he could not reasonably be expected

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[34] *See* MAGNUS, *supra* notes 21, Art. 35, notes 47 et seq.; GRUBER, in: Münchener Kommentar zum Bürgerlichen Gesetzbuch, Vol. 3, *supra* note 21, Art. 35 CISG, note 34; even more stringent in favor of the buyer SCHWENZER, in: SCHLECHTRIEM/SCHWENZER, *supra* note 21, Art. 35, note 34.

[35] See MAGNUS, *supra* note 21, Art. 41, note 22; SCHWENZER, *supra* note 34, Art. 41, note 17; GRUBER, *supra* note 34, Art. 41 CISG, note 20.

[36] *See* MAGNUS, *supra* note 21, Art. 40, note 5; GRUBER, *supra* note 34, Art. 40, notes 2 *et seq.*; demanding more than gross negligence: SCHWENZER, *supra* note 34, Art. 40, note 4.

[37] As to the applicability of Article 79 CISG to this kind of failure *see* MAGNUS, *supra* note 21, Art. 79, note 12; STOLL/GRUBER, in: SCHLECHTRIEM/SCHWENZER, *supra* note 21, Art. 79, notes 5 *et seq.*, with reference to a dissenting opinion based on English and US law.

to have taken the impediment into account at the time of the conclusion of the contract or to have avoided or overcome it or its consequences.

This provision, however, only applies to extraordinary circumstances.[38] In addition it only excludes claims for damages and does not prevent the party affected by the failure, *i.e.* the buyer, from exercising any of the other rights under the Convention (Article 79(5) CISG). From this one can deduce the purpose of the entire provision: It complements and reduces the basic principle of the UN Convention according to which liability for breach of contracts does not require fault.[39] The latter applies to claims for damages, too.[40]

In domestic German law on sales contracts there is no corresponding provision because according to this law contractual liability for damages always requires fault.[41]

According to Article 80 CISG a party to an international sales contract, such as the buyer, may not rely on a failure of the other party, in the context at issue the seller, to the extent that such failure was caused by the first party's, here the buyer's act or omission. This provision puts in concrete terms the general rule laid down in Article 7(1) CISG to observe good faith in international trade.[42] In domestic German law there are similar provisions with respect to the right of any party to a sales contract to terminate it (*see* Sections 323(6) and 326(5) BGB).

2.2.3 Contractual Exclusion of Liability of the Seller

According to domestic German law the seller cannot rely on an agreement with the buyer to exclude or limit the latter's remedies because of a defect if he, *i.e.* the seller, fraudulently concealed the defect or if he or she guaranteed the quality of the sold item (Section 444 BGB). This applies to defects as to quality as well as of title.[43] Implicitly one can deduce from that provision that, as a matter of principle, the contractual exclusion of the buyer's statutory warranty rights is permissible.[44] However, irrespective of Section 444 BGB a complete exclusion of all claims of the buyer for damages for defects of the goods within standard contract terms of the seller can be void according to the law regulating such terms (Sections 307, 309 no. 8 lit. b) and 310(1) BGB).[45]

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[38] *See* MAGNUS, *supra* note 21, Art. 79, notes 4 and 7; STOLL/GRUBER, *supra* note 37, Art. 79, notes 14, 22 *et seq.*; HUBER, in: Münchener Kommentar zum Bürgerlichen Gesetzbuch, Vol. 3, *supra* note 21, Art. 79 CISG, note 19.

[39] *See* MAGNUS, *supra* note 21, Art. 45, note 11; Art. 61, note 15; Art. 79, note 1; MÜLLER-CHEN, in: SCHLECHTRIEM/SCHWENZER, *supra* note 21, Art. 45, notes 5, 8 and 10; GRUBER, *supra* note 34, Art. 25, note 9.

[40] *See infra* 2.3.

[41] *See* also *infra* 2.3.

[42] *See* MAGNUS, *supra* note 21, Art. 80, note 2; STOLL/GRUBER, *supra* note 37, Art. 80, note 1; HUBER, *supra* note 38, Art. 80 CISG, note 1.

[43] *See* WESTERMANN, *supra* note 21, § 444 BGB, note 1.

[44] *Id.*

[45] *See* decision of the German Federal Supreme Court of March 24, 1999, 141 BGHZ 129, 135 concerning a CISG case; as to this *see* MAGNUS, *supra* note 21, Art. 35, note 53.

As Article 4(a) CISG lays down, the Convention does not deal with the validity of such provisions of a sales contract (*see supra* 1.4.2). The validity of the contract is assessed according to the applicable domestic law.[46] The question of applicability of the respective German law has already been discussed (*see supra* 1.4.1). In this context, however, rules on standard contract terms like Section 307 BGB have to be interpreted in light of the principles of the Convention.[47] From this, for instance, it has been concluded that also a complete contractual exclusion of the liability of the seller for defects of the sold goods as of title is supposedly permissible and valid because this liability also is excluded by Article 41 2nd sentence CISG in case of agreement by the buyer.[48]

2.2.4 Prescription of the Remedies of the Buyer

The UN Convention does not provide for any prescription of claims or remedies.[49] This is also true with respect to the buyer's remedies for breach of contract by the seller.[50] The period of two years according to Article 39(2) CISG concerning the notice of a defect as to the quality of a sold good to be given by the buyer to the seller must not be characterized as a preclusion period.[51] From the gap within the Convention regarding prescription again the necessity of recourse to the applicable domestic law follows,[52] in case of German law as applicable law[53] to Section 438 BGB. As a rule this results in a prescription period of two years (Section 438(1) no. 3 BGB) or three years in case of fraudulent concealment of the defect by the seller (Sections 438(3) and 195 BGB). In a case subject to the Convention which, generally, does not use the terms fraudulence or fraudulent intent or concealment knowledge of the defect as well as lack of knowledge caused by gross negligence combined with lacking disclosure to the buyer are on par with fraudulent concealment.[54]

In special circumstances, also the four years prescription period according to Article 8 of the UN Convention on prescription in the international sale of goods of June 14, 1974 as amended by the Protocol attending this Convention of April 11, 1980 can apply.[55] Several Contracting States of CISG are bound by that Convention, too. Germany, however, until now did not ratify it.[56]

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[46] *See* MAGNUS, *supra* note 21, Art. 4, notes 20 and 24 (with respect to contractual exclusion of liability of the seller for defects of sold goods as to quality).

[47] *See* MAGNUS, *supra* note 21, Art. 4, notes 20 and 26; FERRARI, *supra* note 21, Art. 4, note 20.

[48] *See* MAGNUS, *supra* note 21, Art. 41, note 21.

[49] *See* MAGNUS, *supra* note 21, Art. 4, note 38; FERRARI, *supra* note 21, Art. 4, note 35.

[50] *See* MAGNUS, *supra* note 21, Art. 45, note 44; MÜLLER-CHEN, *supra* note 39, Art. 45, note 33; HUBER, *supra* note 38, Art. 45, note 28.

[51] *See* MAGNUS, *supra* note 21, Art. 39, note 63; SCHWENZER, *supra* note 34, Art. 39, note 28.

[52] *See* MAGNUS, *supra* note 21, Art. 4, note 39; FERRARI, *supra* note 21, Art. 4, note 35.

[53] According to Article 32(1) no. 4 EGBGB, prescription is one of the issues subject to the proper law of the contract. As to this *see supra* 1.4.1.

[54] Article 3 of the abovementioned (*supra* 1.3) German Law of July 5, 1989; *see* MAGNUS, *supra* note 21, Art. 3 VertragsG zum CISG, note 1.

[55] *See* MAGNUS, *supra* note 21, VerjährungsÜbk., notes 13 *et seq.*; WESTERMANN, *supra* note 21, Vor Art. 1 CISG, note 17.

[56] *See* MAGNUS, *id.* at note 4; WESTERMANN, *id.*

2.3 Remedies of the Buyer in Case of Delivery of Defective Goods

On the occasion of modernization of the German law of obligations in 2001 (*see supra* 1.1), the claims of the buyer in case of delivery of defective goods, in principle but not in all details, have been brought into line with the UN Convention (*see supra* 2). The following listing cannot respond to the prerequisites and modalities of the claims and remedies of the buyer in detail.

- Primarly, modelled on Articles 34, 37 and 46(2) and (3) CISG, the buyer, also according to domestic German law, can demand supplementary performance by supply of a good free from defects (delivery of substitute goods) or by removing the defect (Sections 437 no. 1 and 439 BGB). At least as a matter of principle, a right of the seller to supplementary performance corresponds with that claim of the buyer (Article 48 CISG, Section 321(1) BGB).[57]
- Furthermore, under certain conditions, the buyer may declare the contract avoided or cancellation of the contract respectively according to the Convention (Article 49 CISG) as well as terminate the contract according to German law (Sections 437 no. 2, 323 and 326(5) BGB).
- In addition, the UN Convention (Article 50) as well as the German Civil Code (Sections 437 no. 2 and 441) provide for the right of the buyer to reduce the price.
- Furthermore, again according to the UN Convention (Article 45(1)) as well as to German law (Sections 437 no. 3, 440, 280, 281, 283 and 311a BGB), under certain conditions and modalities, the buyer can claim damages. In principle, according to both sources of law (Article 45(2) CISG, Section 325 BGB), that claim is not excluded by the exercising of the buyer's right to other remedies.
- As Article 86 CISG does, also domestic German law (Sections 437 no. 3 and 284 BGB) allows the buyer to demand reimbursement of wasted expenditure made in the context of the delivery of defective goods.

However, as already mentioned earlier (*see supra* 2.), the parallelism just listed must not hide the fact that there are also considerable differences between German and international law on sales contracts. The most noticeable difference refers to the question of fault of the seller as a requirement for a damage claim.

In domestic German law, as a matter of principle, fault of the seller is an indispensable prerequisite of any claim for damages of the buyer (Section 437 no. 3 read together with Section 280(1) 2nd sentence BGB as the basic rule). All other provisions on such claim also refer to the latter provision (*see* Sections 281(1) 1st sentence 1, 283 1st sentence and 311a(2) 2nd sentence BGB). Fault on the part of the seller requires intent or negligence (Section 276(1) 1st sentence BGB). Liability for an intentional act cannot be excluded in advance (Section 276(3) BGB). Negligence is legally defined as the failure to observe the relevant accepted standards of care (Section 276(2) BGB). As a rule, liability for damages is already caused by a mere

[57] In German law the so-called right to a second offer (*Recht zur zweiten Andienung*); *see* WESTERMANN, *supra* note 21, § 439 BGB, note 1; § 440 BGB, note 1.

slight degree of negligence; it does not require gross negligence. The latter is characterized by a particular serious lack of care.[58]

A different judgment only applies if the seller warranted a perfect condition of the goods sold. In such a case the seller is liable for damages also without any fault with respect to defects covered by the warranty.[59] In this context, Section 276(1) 1st sentence BGB expressly provides for liability which is stricter than that for intent or negligence. However, according to the new German law on obligations, liability caused by a warranty always requires an – at least implied – warranty agreement.[60] Compared with this, under former German law, according to a widespread opinion, a seller or any other debtor was liable for damages because of a defect as of title without any fault in the form of a legal warranty.[61] Besides this, now again with regard to new German law, fault of the seller can exceptionally affect also the buyer's right to terminate the contract (Sections 323(6), 326(5) BGB) as well as the legal exclusion of the seller's liability (Section 442(1) 2nd sentence BGB, *see supra* 2.2.1).

According to the UN Convention, in principle, the remedies of the buyer in case of delivery of defective goods are independent of fault of the seller.[62] In particular, this is also true with regard to the buyer's claim for damages.[63] Therefore, the liability of the seller for the delivery of defective goods, as a matter of law, in general comes down to a liability for breach of warranty,[64] whereas German domestic law, insofar, requires a special warranty agreement, as has been discussed before. That strict liability of the seller according to the UN Convention is reduced to some extent by the possible exemption as provided for by Article 79 CISG (*see supra* 2.2.2).

All in all, in comparison with German domestic law, liability for damages also without any fault according to the Convention puts the seller at a disadvantage. In other respects, there is a reverse legal situation: For instance, the latter applies to the buyer's obligations to examine the delivered goods and to give notice to the seller of defects irrespective of the buyer's qualification as a merchant (*see supra* 2.2.1). Furthermore, due to the needs of international trade,[65] according to Articles 46(2) and 49(1)(a) CISG in favor of the seller but to the detriment of the buyer delivery of sub-

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[58] *See* HEINRICHS, *supra* note 10, § 276, notes 14 *et seq.*; GRUNDMANN, in: Münchener Kommentar zum Bürgerlichen Gesetzbuch, Vol. 2, Schuldrecht Allgemeiner Teil, § 276, notes 50 *et seq.* (5th ed. 207).

[59] *See* WESTERMANN, *supra* note 21, § 437, note 36.

[60] *See* HEINRICHS, *supra* note 10, § 311a, notes 1 *e seq.*; WESTERMANN, *supra* note 21, § 435, note 1; ERNST, in: Münchener Kommentar zum Bürgerlichen Gesetzbuch, Vol. 2, *supra* note 58, § 280, note 24; § 311a, note 54; Court of Appeals (*Oberlandesgericht*) Karlsruhe, decision of September 14, 2004, 2005 Neue Juristische Wochenschrift (NJW) 989, 990; *see* also the official legislative reasoning, BT-Drucks. 14, 6040, *supra* note 32, p. 165.

[61] *See* decisions of the German Federal Supreme Court of January 31, 1990, 110 BGHZ 196, 199; of December 20, 1996, 1997 NJW 938, 939; of March 23, 2000, 2000 NJW 2101.

[62] *See* MAGNUS, *supra* note 21, Art. 45, notes 1, 11; MÜLLER-CHEN, *supra* note 39, Art. 45, note 8; HUBER, *supra* note 38, Art. 45, note 3.

[63] *See* MAGNUS, *supra* note 21, Art. 74, notes 11, 18 and 32; Art. 79, note 1; MÜLLER-CHEN, *supra* note 39, Art. 45, note 23; HUBER, *supra* note 38; Art. 45, note 3.

[64] *See* MAGNUS, *supra* note 21, Art. 45, note 18; MÜLLER-CHEN, *supra* note 39, Art. 45, note 23.

[65] See MAGNUS, *supra* note 21, Vorbemerkungen zu Art. 45 *et seq.*, note 7.

stitute goods and avoidance of the contract may be required or declared by the buyer only in case of a fundamental breach of contract by the seller. In German domestic law, such a circumstance is only one of more factors as to the choice of the buyer between subsequent delivery of a good free of defects or repairs (Sections 437 no. 1 and 439(3) BGB). Termination of the contract, according to German domestic law, is excluded only in case of an immaterial breach of contractual duties (Sections 437 no. 2 and 323(5) 2nd sentence BGB).[66] In this respect, however, the difference between German and international law is not significant.[67]

3. Defects of Delivered Goods Due to Third Parties' Patents and other IP Rights

3.1 Defects Due to Third Parties' Rights in General

According to German domestic law on sales contracts, liability of the seller and claims of the buyer in case of delivery of defective goods in principle are the same with respect to defects as to quality and as of title.[68] Sections 434 and 435 BGB on defects as to quality on the one hand and as of title on the other hand mainly only serve as definitions of both terms.[69] As Section 435 1st sentence BGB establishes in case of a defect as of title a third party can claim rights against the buyer which were not accepted[70] by him within the sales contract. This means that a third party, based on his own right and in a manner not provided for in the sales contract, can interfere with the undisturbed exploitation of the legal position owed to the buyer.[71]

The UN Convention also distinguishes between defects as to quality (Articles 35 through 40) and defects as of title (Articles 41 through 43). The legal consequences of both kinds of defects, however, otherwise than in German domestic law, differ. The legal exclusion of the seller's liability for defects as of title is regulated more strictly than that for defects as to quality (*see supra* 2.2.1). Furthermore, with respect to defects as of title a mere obligation of the buyer to give notice takes the place of his duty to examine and give notice in the case of a defect as to quality (*see* also *supra* 2.2.1). In such a case the seller cannot rely on a respective breach of duty by the buyer if he, the seller, knew the defect or could not have been unaware of it in the sense of gross negligence (Article 40 CISG).[72] In the event of a defect as of title only knowledge of the third party's right is detrimental for the seller (Article 43(2) CISG).[73] Therefore, in this respect the position of the seller is a better one than in case of a defect as to the quality of the good.

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66 *See* WESTERMANN, *supra* note 21, § 437, note 9.
67 *See* MAGNUS, *supra* note 21, Einleitung zum CISG, note 32.
68 *See* WESTERMANN, *supra* note 21, § 434, note 1; § 437, note 8.
69 *See* WESTERMANN, *supra* note 21, § 434, note 1.
70 *See* term 'rights taken over' used within the legal text is not correct; *see* WESTERMANN, *supra* note 21, § 435, note 5.
71 *See* WESTERMANN, *supra* note 21, § 435, note 4.
72 *See* MAGNUS, *supra* note 21, Art. 40, note 5; GRUBER, *supra* note 34, Art. 40, note 3.
73 *See* MAGNUS, *supra* note 21, Art. 43, notes 31 and 33.

If the seller delivers goods afflicted with a defect as of title, in principle, according to Articles 45 *et seq.* CISG the buyer may claim or exercise the same rights as in the case of a defect as to quality.[74] This particularly applies to his claim for damages regardless of fault of the seller (Article 45(1)(b) CISG), to the prerequisite of a fundamental breach of contract or defect as of title respectively with regard to the buyer's right to declare the contract avoided (Article 49(1)(a) CISG) as well as to his right to reduce the price (Article 50 CISG).[75] In contrast, the buyer's right to deliver substitute goods or to remove the defect are said to follow directly from Article 46(1) CISG and, therefore, unless in the event of defects as to quality, to be independent of compliance with the requirements of Article 46(2) and (3) CISG.[76]

In addition, the preclusion period of two years, according to Article 39(2) CISG concerning the duty of the buyer to give notice of a defect as to quality to the seller, does not apply to the corresponding obligation with respect to defects as of title.[77] And furthermore, exclusion of liability of the seller because of subjective circumstances on the side of the buyer are more strictly defined in the event of a defect as of title (Artcile 41 1st sentence CISG) than in case of defects as to quality (Article 35(3) CISG, *see supra* 2.2.1).

Besides the aforementioned issues, it seems remarkable that the seller's obligation to deliver goods free of defects applies not only to existing but also to mere pretended rights of third parties.[78] German domestic legislation refrained from adopting this approach.[79]

3.2 Defects Due to Third Parties' Patents or other IP Rights

German domestic law on sales contracts does not provide for special provisions on liability of the seller and/or remedies of the buyer with regard to the delivery of goods that are defective because of third parties' intellectual property (IP) rights, such as patents, trademark rights, design rights or copyrights. In the context of the legislative procedure which, in 2001, has led to the new German law on obligations (*see supra* 1.1) the draft bill explicitly refrained from introducing such provisions.[80] Therefore, the general rules on defects of delivered goods as of title apply.[81]

From equivalent treatment of defects as to quality and as of title according to the new German domestic law on sales contracts (*see supra* 3.1) it follows that, in principle, the consequences of such defects are the same. This applies to the liability of

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[74] *See* MAGNUS, *supra* note 21, Art. 41, note 23; GRUBER, *supra* note 34, Art. 41, note 3; different view expressed by SCHWENZER, *supra* note 34, Art. 41, note 20.

[75] *See* MAGNUS, *supra* note 21, Art. 41, notes 24 to 26; see also *supra* 2.3.

[76] *See* MAGNUS, *supra* note 21, Art. 41, note 23; Art. 46, notes 15 to 17; MÜLLER-CHEN, *supra* note 39, Art. 46, note 22; HUBER, *supra* note 38, Art. 46, note 9.

[77] *See* MAGNUS, *supra* note 21, Art. 43, notes 3 and 7.

[78] *See* MAGNUS, *supra* note 21, Art. 41, notes 15 *et seq.*; SCHWENZER, *supra* note 34, Art. 41, notes 9 *et seq.*; GRUBER,, *supra* note 34, Art. 41 CISG, notes 6 et seq. .

[79] *See* BT-Drucks. 14/6040, *supra* note 32, at p. 217 et seq.; WESTERMANN, *supra* note 21, § 435, note 11.

[80] *See* BT-Drucks. 14/6040, *supra* note 32, p. 218.

[81] *See* WESTERMANN, *supra* note 21, § 435, note 4.

the seller and its exclusion according to Section 442 BGB as well as to the remedies available to the buyer[82] (for details *see supra* 2.2 and 2.3).

Under the UN Convention the legal situation is different: Article 41 2nd sentence CISG with respect to the obligations of the seller concerning defects of goods resulting from a third party's industrial or other intellectual property refers to the special rules in Article 42 CISG. The wording of this provision is as follows:

> (1) The seller must deliver goods which are free from any right or claim of a third party based on industrial property or other intellectual property, of which at the time of the conclusion of the contract the seller knew or could not have been unaware, provided that the right or claim is based on industrial property or other intellectual property:
>
> (a) under the law of the State where the goods will be resold or otherwise used, if it was contemplated by the parties at the time of the conclusion of the contract that the goods would be resold or otherwise used in that State; or
>
> (b) in any other case, under the law of the State where the buyer has his place of business.
>
> (2) The obligation of the seller under the preceding paragraph does not extend to cases where:
>
> (a) at the time of the conclusion of the contract the buyer knew or could not have been unaware of the right or claim; or
>
> (b) the right or claim results from the seller's compliance with technical drawings, designs, formulae or other such specifications furnished by the buyer.

Article 41 1st sentence CISG and Article 42(1) CISG mention any 'right or claim' of a third party. Therefore, also with regard to third parties' IP rights one has to equalize existing and mere pretended rights.[83] It is the aim of this extension of the seller's liability to protect the buyer from burdensome conflicts with the third parties as far as possible.[84]

The most remarkable or even spectacular peculiarity of the special provisions of Article 42 CISG refers to fault as a requirement of the seller's liability: According to Article 42(1) CISG the obligation of the seller to deliver goods which are free from any third party's IP rights or claims is restricted to cases where the seller, at the time of the conclusion of the contract, knew the right or claim or, in the meaning of gross negligence,[85] could not have been unaware of them. This provision in favor of the

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[82] *See* WESTERMANN, *supra* note 21, § 437, note 5; § 442, note 3.

[83] *See* MAGNUS, *supra* note 21, Art. 42, note 13; SCHWENZER, *supra* note 34, Art. 42, note 6, quoting examples; GRUBER, *supra* note 34, Art. 42, note 8.

[84] *See* GRUBER, *supra* note 34; *see* also in general with regard to other 'rights or claims' MAGNUS, *supra* note 21, Art. 41, note 15; SCHWENZER, *supra* note 34, Art. 41, note 9.

[85] *See* MAGNUS, *supra* note 21, Art. 42, note 22; GRUBER, *supra* note 34, Art. 42 CISG, note 18; German Federal Supreme Court, decision of July 5, 1989, 1989 Recht der Internationalen Wirtschaft (RIW) 741, 742, with respect to the comparable Article 40 of the Uniform Law on the international sale of goods of July 17, 1973 (1973 BGBl. I, p. 856) which, in the meantime, has been abrogated according to Article 99(3) CISG; as to this *see* Article 5 of the German Act of July 5, 1989, *supra* 1.3.

seller widely deviates from the seller's general warranty liability according to the UN Convention as well as, even in two ways, from German domestic law (*see supra* 2.3). First, in the event of a lack of fault of the seller the buyer has no remedies at all. Exemption of the seller from liability does not only refer to the buyer's claim for damages.[86] Secondly, a slight degree of negligence of the seller as to his lacking knowledge does not suffice for establishing his liability. Whether or not the seller can be accused of a gross negligent lack of knowledge has to be decided according to the circumstances of any individual case. For instance, on the one hand the following factors have to be taken into account: the character of the respective IP right as a researchable registered right, such as a patent, a utility model right, a registered design right or a registered trademark, or, on the other hand, a badly ascertainable unregistered right, such as a copyright, an unregistered design right or an only used but nevertheless protected trademark which has not reached the status of a well-known or even famous mark. Other factors *i.a.* are the presence of the seller in the market, his involvement in the process of production, the kind of negotiations and agreements of the parties to a sales contract and suspicious factors *e.g.* based on former experience.[87]

As to the aim of that kind of restricted liability of the seller, one has to take into account the territoriality of IP rights, the needs of international trade and the intention of the legislature to keep the liability of the seller in reasonable limits.[88] Territoriality in this context stands for the uncertain existence and contents of IP rights from one country to the other from a worldwide point of view.

The same aim is also pursued by the territorial restriction of the seller's liability to third parties' IP rights acquired under the law of the state where the goods are resold or otherwise used or where the buyer has his place of business (Article 42(1)(a) and (b) CISG).

In addition to this, Article 42(2) CISG provides for two further privileges of the seller: first, liability is excluded if, at the time of conclusion of the contract, the buyer knew the right or the claim of the third party or, in the meaning of gross negligence,[89] could not have been unaware of them (Article 42(2)(a)). Secondly, the same applies if the goods correspond with instructions given by the buyer (Article 42(2)(b)).[90] Again, Article 42(2)(a) CISG, in favor of the seller, breaks with the general standard of the UN Convention.

In the event of an IP right of a third party liability of the seller, as in the case of a defect of the goods as to quality (Article 35(3) CISG), is already excluded by knowledge or gross negligent unawareness of the buyer whereas in the event of a

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[86] On this note MAGNUS, *supra* note 21, Art. 42, note 32, in case of a fault of the seller refers to the general remedies of the buyer.

[87] *See* MAGNUS, *supra* note 21, Art. 42, note 22; SCHWENZER, *supra* note 34, Art. 42, note 14; GRUBER, *supra* note 34, Art. 42 CISG, note 19; for more details see LANGENECKER, UN-Einheitskaufrecht und Immaterialgüterrechte, 186 *et seq*. (1993).

[88] *See* SCHWENZER, *supra* note 34, Art. 42, notes 1 and 2.

[89] *See* MAGNUS, *supra* note 21, Art. 42, note 26; GRUBER, *supra* note 34, Art. 42 CISG, note 22.

[90] *See* MAGNUS, *supra* note 21, Art. 42, notes 28 *et seq*.: SCHWENZER, *supra* note 34, Art. 42, notes 18 *et seq*.; GRUBER, *supra* note 34, Art. 42 CISG, notes 23 *et seq*.

defect as of title in general only agreement of the buyer has that effect (Article 41 1st sentence CISG, *see supra* 2.2.1 and 3.1). By the way, according to German domestic law (Section 442(1) 2nd sentence BGB) the effect depends on the knowledge of the buyer or on the buyer's gross negligent unawareness combined with a lack of fraudulent concealment or with a lack of warrenty given by the seller (*see supra* 2.2.1).

The difference between international and German domestic law is important, for instance, with regard to the widespread transborder trade with pirated goods. If such goods already owned by the buyer have been seized or destroyed at the initiative of the owner of the affected IP right, it will be much more difficult for the buyer to have recourse against the seller under international law than under German domestic law.[91]

In case of a defect due to an IP right or claim of a third party, just as in the event of defects as of title in general (*see supra* 3.1), exclusion of the liability of the seller because of the buyers's failure to give notice (Article 43(1) CISG) does not apply only if the seller knew the right (Article 43(2) CISG). In case of defects as to quality, according to Article 40 CISG this effect also takes place if the seller was unaware of the right or claim because of gross negligence (*see supra* 3.1). On the other hand, in contrast to the case of defects as to quality (Article 39(2) CISG) but in conformity with the situation in the case of defects as of title in general (*see supra* 3.1) also with respect to the same defects resulting from third parties' IP rights or claims, there is no preclusion period concerning the possibility of the buyer to rely on defects. In both cases, an obligation of the buyer to give notice to the seller specifying the nature of the right or claime of the third party "within a reasonable time" after he has become aware or ought to have become aware of the right or claime supersedes that period (Article 43(1) CISG).

All in all, however, one can establish that the liability of the seller for defects of goods due to third parties' IP rights is considerably restricted by Article 42 CISG: in comparison with his uniform law liability for defects as to quality and as of title in general as well as compared with German domestic law on sales contracts.

Besides that, like most of the other provisions of the Convention, Article 42 CISG is subject to disposition of the parties according to Article 6 CISG (*see supra* 1.4.3). Therefore, without further ado, the seller may enter into a warranty of title with regard to third parties' IP rights and claims.[92] Validity of a corresponding clause of a sales contract, as a consequence of Article 4(a) CISG, has to be judged by the applicable domestic law (*see supra* 1.4.2 and 2.2.3). If German domestic law is applicable, such a clause, as a matter of principle, can be agreed on.[93] However, one has to reserve another judgment pursuant to the (German) law on standard contract terms, particularly Section 307 BGB, bearing in mind the principles underlying

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[91] As to such a case in the relationship between France (buyer) and Spain (seller) see the decision of the French Cour de cassation of March 19, 2002, 2003 Juris-Classeur Périodique, Édition générale (JCP) II 10016, with note by RAYNARD.

[92] This even applies to a so-called absolute warranty which also excludes an exemption of the seller for extraordinary circumstances according to Article 79 CISG (*see supra* 2.2.2); as to the result *see* STOLL/GRUBER, *supra* note 37, Art. 79, note 52.

[93] *See* GRUNDMANN, *supra* note 58, § 276, note 173.

Article 42 CISG[94] in cases in which a buyer under his conditions forces the seller to take over a comprehensive warranty.

Objections may be raised against a contractual exclusion of the seller's liability exceeding Article 42 CISG and excluding liability also for intent and gross negligence.[95] Again, validity of such a stipulation must be judged by the applicable domestic law. If German law is applicable, one has to look at Section 276(3) BGB. According to this provision liability for an intentional act cannot be excluded in advance (*see supra* 2.3). A contractual exclusion of the seller's liability for gross negligence if agreed on in his standard contract terms could eventually fail because of Sections 307, 309 no. 7 lit. b) and 310(1) BGB (*see supra* 2.2.3).

Admittedly, one could also hold out to such a judgement that even with regard to defects as of title in general a complete contractual exclusion of the seller's liability is said to be valid in analogy to Article 41 2nd sentence CISG (*see supra* 2.2.3). However, it seems more advisable and legitimate not to rely on this kind of reasoning, but to give notice of the defect to the buyer and, in this way, to supply him with the knowledge, which, according to Article 42(2) CISG, excludes the seller's liability even in case of intent or gross negligence on his side.[96]

4. Conclusion

With regard to export and import trade as its field of application international uniform law according to the United Nations Convention on contracts for the international sale of goods of April 11, 1980, on the one hand, claims precedence over the German domestic law on sales contracts. On the other hand, its application can be contracted out by the parties in favor of domestic law applicable under the law of conflict of laws. Therefore, in order to be able to make a correct decision, the parties to an international sales contract should be aware of the differences of both sources of law. The article compares international uniform law with the German domestic law on sales contracts as amended in year 2001. With respect to its warranty provisions this amendment follows the model of international uniform law. Nevertheless, there are also considerable differences between uniform and domestic law. The most remarkable difference refers to the liability of the seller for defects of the sold goods. International uniform law provides for an entire warranty liability of the seller with respect to defects as to quality and, in general, also as of title, whereas according to the new German domestic law a fault of the seller is a prerequisite of the seller's liability for damages in both cases. As to this fault a slight degree of negligence is sufficient. International uniform law departs from its general rules with regard to the seller's liability for defects as of title due to third parties' patents and other intellectual property (IP) rights: In this respect the entire liability, liability for damages included, is dependent on intent or gross negligence of the seller. In addition to this, international uniform law in the same context

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[94] *See supra* 2.2.3.

[95] *See* SCHWENZER, *supra* note 34, Art. 42, note 24a; GRUBER, *supra* note 34, Art. 42, note 26.

[96] *See* MAGNUS, *supra* note 21, Art. 35, note 54, with respect to defects of goods as to quality.

grants the seller also other advantages which exceed German domestic law, too. In principle, the provisions of international uniform law on the seller's liability for defects due to third parties' IP rights can be contracted out in favor of a warranty liability of the seller. To some extent, they can also be surpassed in favor of the seller. In both cases, however, *i.a.* the applicable domestic law on standard contract terms has to be taken into account.[97]

[97] After completion of the manuscript the new Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I) was promulgated (see [2008] OJ L 177, p. 6). The Regulation replaces the Convention of 19 June 1980 (*see supra* at note 12). The Regulation shall apply to contracts concluded after 17 December 2009 and, in general, shall apply from the same day. In essence, the rules most relevant in the context of this contribution shall remain the same as under the European Convention of 1980 (*see supra* at note 12): applicability of the law chosen by the parties to a contract for the sale of goods or, in case of lack of such a choice, of the law of the country where the seller has his habitual residence, central administration or location of establishment.

The Principle of National Treatment in the International Conventions Protecting Intellectual Property

Ulrich Loewenheim

National treatment is one of the fundamental principles in the international conventions protecting intellectual property. It is established in the most important conventions – as, *e.g.*, in the Paris Convention, the Berne Convention, the Rome Convention, the Universal Copyright Convention, TRIPS, NAFTA and the WPPT, also in the WCT that under its Article 3 makes Articles 2 – 6 part of the WCT. There are only a few conventions not applying the national treatment principle, such as, the Geneva Phonograms Convention and the Brussels Satellite Convention, and those do not confer private rights to the beneficiaries who shall be protected, but leave it to the Contracting States to choose the legal means of protection.

National treatment is the simple and ingenious solution to solve the problem of worldwide protection for creative inventors and authors. According to the principle of territoriality, countries can grant protection only within the boundaries of their own territory. Worldwide protection can be provided only by international treaties having as members the greatest possible number of countries. But when concluding such treaties, the nature and scope of protection accorded to nationals of other member states was an issue that still had to be solved. Worldwide harmonization of national intellectual property appeared to be unrealistic, and reciprocity as a general principle would have led to a patchwork system of mutual protection, including the need to find out in individual cases what kind of protection was granted by the laws of the other country in question. National treatment, under which a treaty member accords nationals of other member states the same treatment it accords its own nationals, allows that member and its courts to apply their own law – the law they are familiar with. Supplemented by the system of minimum rights, it even has the tendency to bring about a harmonization of national laws – at least up to a certain degree.

Even if the principle of national treatment seems to be clear, looking into the details there are still unsolved issues. Three of them shall be discussed here: the influence of minimum rights on the scope of national treatment, the inclusion of future legislation into the scope of national treatment in general and, more specifically, what kind of future rights may fall within the scope of national treatment.[1]

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[1] For further issues *see* BURGER, The New Photocopy Remuneration Provisions in the Federal Republic of Germany and Their Application to Foreign Authors under International Copyright Law, 19 IIC 488 (1988).

1. Influence of Minimum Rights on the Scope of National Treatment

It always has been controversial whether in some of the conventions the scope of national treatment is limited by the scope of the minimum rights provided in the respective convention. While the Paris Convention, the Berne Convention, TRIPS and the UCC, at least in principle, grant national treatment unconditionally, it is disputed whether the Rome Convention and the WPPT grant national treatment only within the limits as set up by the minimum rights. Article 2(2) Rome Convention reads:

> National treatment shall be subject to the protection specifically guaranteed, and the limitations specifically provided for, in this Convention.

WIPO's 'Guide to the Rome Convention' comments on this in the following way:

> The national treatment is subject to the protection set out particularly in Article 7 (for performers) 10 (for producers of phonograms) and 13 (for broadcasting organizations). Even if a Contracting State does not grant these minima to its own nationals, it must do so to nationals of other Contracting States. The same paragraph makes it clear that the minimum rights which must be given are themselves subject to the limitations on these rights which the Convention allows. The General Report makes that clear giving an example: under Article 16 a Contracting State could [not?] deny or limit rights of secondary use with respect to phonograms (Article 12), regardless of whether its domestic law granted this protection.[2]

Article 4 (1) WPPT restricts the national treatment principle likewise. The provision reads:

> Each Contracting Party shall accord to nationals of other Contracting Parties, as defined in Article 3(2), the treatment it accords to its own nationals with regard to this Treaty, and the right to equitable remuneration provided for in Article 15 of this Treaty.

The controversy regards the issue whether 'the limitations specifically provided for the protection' in the Rome Convention and, respectively, 'the exclusive rights specifically granted' in the WPPT, limit the national treatment in a way that national treatment cannot accord more rights than provided by the minimum rights in the Rome Convention and, respectively, the WPPT, or whether they refer only to the limitations and exceptions of Articles 15 and 16 Rome Convention and, respectively, Article 16 WPPT. This issue is relevant in cases where national law accords more rights than the Rome Convention and the WPPT do. Some authors apply Article 2(2) Rome Convention and Article 4(1) WPPT only to the limitations and exceptions of Articles 15 and 16 Rome Convention and, respectively, Articles 15(3) and 16 WPPT,[3]

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[2] WIPO Publication No. 617 (E) – 1981, at 19.

[3] *See*, above all, SCHRICKER/KATZENBERGER, Urheberrecht, remarks before §§ 120 marginal note 79 *et seq.* (3rd ed. 2006); WANDTKE/BULLINGER, Urheberrecht, § 125 marginal note 24 (2nd ed. 2006); KATZENBERGER, Inländerbehandlung nach dem Rom-Abkommen, in: GANEA/HEATH/SCHRICKER (eds.), Urheberrecht: gestern, heute, morgen: Festschrift für Dietz, 481, 487 *et seq.* (2001); *see* also RICKETSON/GINSBURG, International Copyright and Neighbouring Rights, Vol. II, 1248, at 19.49 (2006).

while other authors suggest that that national treatment cannot accord more rights than provided by the minimum rights.[4] The language of Article 2(2) Rome Convention and Article 4(1) WPPT rather supports the latter authors; the reference to Article 16 a Rome Convention made in the General Report and in WIPO's Guide is used just as an example. Even more clearly, it shows the genesis of Article 4 WPPT that national treatment should not be granted unconditionally: the proposal to formulate a provision along the lines of Article 5(1) of the Berne Convention was rejected and only a weaker formulation could be agreed upon.[5] So it appears to be more appropriate to interpret Article 2(2) Rome Convention and Article 4(1) WPPT in a way that the national treatment granted by the country where protection is sought is limited by the scope of the minimum rights.

2. Scope of National Treatment: Inclusion of Future Legislation

Another problem concerns the inclusion of future legislation. While some Conventions as, *e.g.*, the Rome Convention, the WPPT, the UCC and NAFTA describe national treatment as the treatment accorded to its own nationals,[6] other conventions, as the Paris Convention and the Berne Convention refer explicitly not only to the present but also to future legislation.[7] Does this different language lead to any substantive differences in application? This question should be answered in the negative. It is true that Article 2 of the Paris Convention and Article 5(1) of the Berne Convention make it clear that protected beneficiaries shall also enjoy rights that did not exist yet at the point of time when the respective convention came into force but that were enacted only later. However, the conventions not making an explicit reference to future legislation do not exclude the grant of rights that were enacted after their coming into force. National treatment means that foreign authors (provided they are protected by the respective treaty) shall enjoy the same protection as domestic authors – in the language of, *e.g.*, Article 3(1) TRIPS: 'each Member shall accord to the nationals of other Members treatment no less favorable than that it accords to its own nationals with regard to the protection of intellectual property'. As a matter of course, Member States accord to their nationals the law that is in force at the point of time the judicial decision is taken, and that includes the legislation enacted after the coming into force of a given convention. Since nationals of other Member States shall enjoy a treatment no less favorable than the one accorded

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4 *See* V. LEWINSKI, Die diplomatische Konferenz der WIPO 1996 zum Urheberrecht und zu verwandten Schutzrechten, 1997 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 667, 671; REINBOTHE, Der Schutz des Urheberrechts und der Leistungsschutzrechte im Abkommensentwurf GATT/TRIPS, 1992 GRUR Int. 707, 712.

5 *See* V. LEWINSKI, *supra* note 4, *id.*; RICKETSON/GINSBURG, *supra* note 3, 1248 *et seq.* at 19.49.

6 *See* Article 2 Rome Convention; Article 4 WPPT; Art. II UCC; Article 1703 NAFTA.

7 Article 2 Paris Convention: 'the advantages that their respective laws grant, or may hereafter grant, to nationals'; Article 5 (1) Berne Convention: 'the rights which their respective laws do now or may hereafter grant to their nationals'. Reference to this principle is made by Article 9 (1) TRIPS and Article 3 WCT.

to domestic authors, they too will enjoy the rights that were enacted after coming into force of the said convention.

3. Scope of National Treatment: What Future Rights Shall Be Included ?

National treatment means that – with the proviso that the requirements set up by the respective minimum rights are met – it is the respective national law that determines the scope of protection. Consequently, it is a matter for legislation in the Member States to determine: whether or not certain works or inventions shall be protected, who the owner of the intellectual property right is, whether or not that right can be transferred, by what means it shall be protected and similar issues. This is – at least as a principle – not only undisputed but also backed up by footnote 3 of the TRIPS agreement which reads: '… "protection" shall include matters affecting the availability, acquisition, scope, maintenance and enforcement of intellectual property rights as well as those matters affecting the use of intellectual property rights specifically addressed in this Agreement'. Consequently, national treatment leads to a different kind of protection in each Member State, a total protection that may remind one of patchwork. But national treatment is not only a principle contracting parties could agree upon, it also makes the protection easier insofar as administration and courts can apply their domestic law. In addition, the 'patchwork' system is qualified in two ways: first, in some cases the principle of reciprocity applies, as, *e.g.*, in Articles 7(8) and 14ter(2) Berne Convention and, secondly, it is qualified by the minimum rights that set up a certain level of protection national laws must not fall short of.

But this does not yet answer the question of what kind of future rights may fall within the scope of 'the rights which their respective laws … may hereafter grant to their nationals' (Article 5 [1] of the Berne Convention and Art. 2 of the Paris Convention, respectively). Should that question – in applying the principle of national treatment – be answered by national law, too, or should it be a matter of the conventions? Do 'the rights which their respective laws … may hereafter grant to their nationals' include all rights related to 'literary and artistic works' or related to 'industrial property', respectively? Is it restricted to the sort of works and property as included in the conventions? Should the interpretation be broader or more restrictive? Does it matter by what type of law rights are conferred to right holders – law concerning intellectual property on one hand or another kind of law such as competition law or tax law on the other side?

This issue has been discussed, among other things, with respect to the photocopy remuneration right.[8] Under many copyright laws, private copies of protected works may be made under certain conditions without permission of the copyright owner provided that a fair compensation will be paid.[9] This compensation mostly

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[8] *See, e.g.*, BURGER, *supra* note 1, at 488; RICKETSON/GINSBURG, *supra* note 3, at 6.97.

[9] *See, e.g.*, Article 5(2)(a) Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society, 2000 OJ L167, p. 10.

consists in a surcharge on copying machines and blank sound and video carriers; it is collected by collecting societies and distributed by them to the right owners. Is this one of 'the rights which their respective laws … may hereafter grant to their nationals'? The question may be asked also with respect to the public lending right and to commercial rental rights.[10]

First of all it should be stated that this issue must not be decided by national law. Article 2 of the Paris Convention and Article 5(1) of the Berne Convention clearly stipulate that the beneficiaries shall enjoy the rights which their *respective laws* may hereafter grant to their nationals, and the term *respective laws* refer – under the Paris Convention – to the protection of industrial property (Article 2 [1] Paris Convention) and, respectively, under the Berne Convention to the 'works for they (*i.e.* authors) are protected under this Convention', namely literary and artistic works (Article 1 Berne Convention). Thus, this issue does not concern the scope of national treatment as granted by national law to domestic authors, but the scope of application of the international conventions. So the interpretation has to be made according to the subject matter and the objectives of the Conventions.[11]

Ladas suggests that the term 'respective laws' as contained in Article 5(1) Berne Convention refers to the laws relating to authors.[12] But it has been criticized that such an interpretation 'seems too wide, as it could potentially include other laws applicable to authors which have only indirect connection with the subject matter of author's rights, for example, laws relating to the taxation of royalties, or laws which subsidize artistic endeavour through the grant of monetary and other assistance'.[13] Indeed this criticism is justified; the mere relation of laws to authors (or inventors) does not constitute a relation to the objectives of the international conventions.

Vaver relies on two elements:

> As used in the RBC (*i.e.* Revised Berne Convention), an author's right tracks the primary meaning common to most national copyright laws: an author has in relation to his/her work the right to exclude others from reproducing or using the work in some way. The RBC extends this primary meaning to include a right to receive remuneration from the user of the work, even where the author is unable to prevent the use.[14]

Steup states that copyright protection includes as essential elements that a right is granted to a person in its capacity as the author of a determined work and that the right is related to the utilization of the work.[15]

Burger argues that

> national treatment will only apply to a right enacted in one of the contracting states if the right is one that falls within the subject matter of the applicable Convention … for

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[10] *See* RICKETSON/GINSBURG, *supra* note 3, at 6.96.

[11] *See* also BURGER, *supra* note 1, at 496 *et seq*. and 505.

[12] LADAS, The International Protection of Literary an Artistic Property 268 (1938).

[13] RICKETSON/GINSBURG, *supra* note 3, at 6.94.

[14] VAVER, The National Treatment Requirements of the Berne and Universal Copyright Conventions, Part Two, 17 IIC 715, 717 (1986).

[15] STEUP, The Rule of National Treatment for Foreigners and Its Application to New Benefits for Authors, 25 Bulletin of the Copyright Society of the USA 279, 284 (1977).

> a new right to come within the purview of national treatment, the rules on international treaty interpretation require that the new right at least be consistent with the characteristics of the other Convention rights. A breakdown of the rights as they exist under the Conventions reveals that a copyright right must include at least (1) a right (2) granted to an individual author (3) to authorize a use of the author's work.[16]

According to Goldstein three elements are essential: a right subject to national treatment must be 'effective at the world at large', 'enable the author to control, or benefit from, the use of a literary or artistic work' and 'value the use of the work, however roughly, proportionate to the work's success or prospective success in the marketplace'. 'If any one of these elements is present, national treatment may be required; if all are present, it must be extended'.[17]

Jane Ginsburg bases her opinion on the essential elements of the protection granted by the Berne Convention, namely (1) the identification of persons who are eligible to claim this protection, (2) the subject matter protected (literary and artistic works), (3) the substantive rights protected, (4) the duration of this protection, (5) the exceptions to this protection, and (6) the remedies afforded. Based on these elements she concludes:

> … an author claiming protection under the Convention should have the benefit of whatever the provisions of national law concerning these matters are, insofar as they go beyond what is required by a specific rule. These matters can be briefly described as relating to the rights and subject matter to be protected, the scope of this protection, and its duration or termination.[18]

These statements show that the objectives of the international conventions as expressed in the language of their provisions have to be the essential criteria according to which it must be determined whether or not future legislation falls into the scope of 'the rights which their respective laws … may hereafter grant to their nationals' (Article 5 [1] of the Berne Convention and Article 2 of the Paris Convention, respectively). The future legislation must concern an author's (or inventor's) right that enables him to exclude others from the use of the work or invention and, if such use is allowed without his permission, at least enables him to benefit from that use. The future legislation may then establish, extend or limit that right.

This result also answers the question of whether the remuneration right is to be included in the 'rights hereafter granted' according to Art. 5(1) Berne Convention and Art. 2(1) Paris Convention. Private copies may be made without the authorization of the right owner. As a compensation therefore the remuneration right is granted – it replaces the royalty the right owner could receive if he licensed his right.[19] Consequently it should be regarded as one of the future rights in the meaning of Article 5(1) Berne Convention.

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[16] BURGER, *supra* note 1, at 500 and 505.
[17] GOLDSTEIN, International Copyright: Principles, Law, and Practice 81 – 2 (2001).
[18] RICKETSON/GINSBURG, *supra* note 3, at 6.95.
[19] BURGER, *supra* note 1, at 507.

4. Conclusion

1. Article 2(2) Rome Convention and Article 4(1) WPPT should be interpreted in a way that the national treatment granted by the country where protection is sought is limited by the scope of the minimum rights.
2. The Conventions not including expressly the grant of rights enacted after their coming into force in the scope of national treatment include, nevertheless, such future rights in national treatment.
3. Future rights in the meaning of Art. 5(1) of the Berne Convention and Art. 2 of the Paris Convention must concern an author's (or inventor's) right that enables him to exclude others from the use of the work or invention and, if such use is allowed without his permission, at least enables him to benefit from that use.

The Extraterritorial Reach of Patent Law

Rainer Moufang

1. Introduction

The international dimension of patent law is one of the cornerstones of the scientific oeuvre of Joseph Straus. A great many of his publications are devoted to the profound analysis of the universal conventions such as the Paris Convention[1] or the TRIPS Agreement,[2] to the ongoing work on international patent law harmonization[3] and to truly comparative patent law including conflict of law issues.[4] The antagonism between the territorial nature of patent rights and the increasing pace of economic and technological globalization lies at the heart of this field of research and is fuelling legal controversies which are not only intellectually challenging, but of enormous practical importance for the worldwide process of innovation and development.

One of these debates concerns what has been termed the 'extraterritorial reach' of patent law. It focuses, in particular, on the question under which circumstances domestic patent law is able to cope with asserted acts of infringement which contain extraterritorial aspects. Albeit not a completely new phenomenon of international patent law and already analyzed in great depth by scholars of Joseph Straus' intellectual home, the Munich Max Planck Institute, in the seventies of the last century,[5] issues of extraterritorial reach have generally not been so much in the limelight of

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1 *See e.g.* BEIER/STRAUS, Probleme der Unionspriorität im Patentrecht, 1991 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 255-261; STRAUS, Zum relevanten Offenbarungsgehalt von Prioritätsanmeldungen nach Art. 4 H Pariser Verbandsübereinkunft, 1995 GRUR Int. 103-112.

2 *See e.g.* STRAUS, Priority Right, 35 U.S.C. Sec. 102 (d) Bar and the TRIPS Obligations of the USA – A Last Chance to Analyze the Issue?, in: AHRENS/BORNKAMM/KUNZ-HALLSTEIN (eds.) Festschrift für Eike Ullmann, p. 515-544 (2006); STRAUS, Bedeutung des TRIPS für das Patentrecht, 1996 GRUR Int. 179-205 = Implications of the TRIPS Agreement in the Field of Patent Law, in: BEIER/SCHRICKER (eds.) From GATT to TRIPS – The Agreement on Trade-Related Aspects of Intellectual Property Rights, IIC Studies Vol. 18, p. 160-215 (1996).

3 *See e.g.* STRAUS/KLUNKER, Harmonisierung des internationalen Patentrechts, 2007 GRUR Int. 91-104 = Harmonization of International Patent Law, 38 IIC 907-936 (2007).

4 *See* STRAUS, Die international-privatrechtliche Beurteilung von Arbeitnehmererfindungen im europäischen Patentrecht, 1984 GRUR Int. 1-7 = Diritto internazionale privato ed invenzioni dei dipendenti nel sistema brevettuale europeo, 1985 Rivista di diritto industriale 47-62.

5 *See* STAUDER, Patent Infringement in Export Trade – The Vulnerable Combination Patent, 3 IIC 491-505 (1972); STAUDER, Patentverletzung im grenzüberschreitenden Wirtschaftsverkehr, 1975; BEIER/STAUDER, Weltraumstationen und das Recht des geistigen Eigentums, 1985 GRUR Int. 6-13.

European patent lawyers' attention in the recent past.[6] In fact, they appear to have been overshadowed by important judicial and legislative developments relating to other international patent laws aspects such as the twin decisions *GAT v. LuK* and *Roche Nederland v. Primus* of the European Court of Justice on the adjudication of foreign patents,[7] the work on the European Patent Litigation Agreement (EPLA), the judicial system of the Community Patent or conflict of law issues raised by the impact of the Rome I and II Regulations of the EC.[8] On the other side of the Atlantic, however, recent litigation mostly in the area of telecommunications, computing and the internet, which in one case even found its way to the Supreme Court,[9] has clearly brought the international reach of patent law into focus[10] and stimulated considerable discussions in legal literature.[11] One does need not to be a prophet to predict that also in Europe the courts and the patent community in general will have to struggle with this kind of issues more and more in the forthcoming years. The

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6 Notable exceptions are HAUPT, Territorialitätsprinzip im Patent- und Gebrauchsmusterrecht bei grenzüberschreitenden Fallgestaltungen, 2007 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 187-194; KELLER, Patentverletzungen durch Handlungen im patentfreien Ausland, in: Festschrift für Eike Ullmann, *supra* note 2, p. 449-464.

7 ECJ, July 13, 2006, C-4/03 and C-539/03, 2006 GRUR Int. 836 and 839. *See* KUR, A Farewell to Cross-Border Injunctions?, 37 IIC 844-864 (2006); RÖSSLER, The Court of Jurisdiction for Joint Parties in International Patent Disputes, 38 IIC 380-400 (2007); *see* furthermore Swiss Federal Supreme Court, October 23, 2006, 4C.210/2006; 39 IIC 232 (2008) – *International Jurisdiction for Negative Declaration.*

8 Regulation (EC) No. 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I), [2008] OJ L 177, p. 6, of 4 July 2008 (for comments on the draft Regulation by the European Max Planck Group for Conflict of Laws in Intellectual Property see 38 IIC 471-477 (2007), and Regulation (EC) No. 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law applicable to non-contractual obligations (Rome II), [2007] OJ L 199, p. 40, of 31 July 2007. The principle of *lex loci protectionis* in the field of intellectual property law is enshrined in Art. 8 of the Rome II Regulation.

9 *Microsoft Corp. v. AT&T Corp.*, 82 USPQ2d 1400 (Supreme Court 2007) = 2007 GRUR Int. 768. Recent relevant U.S. case law furthermore includes: *Pellegrini v. Analog Devices, Inc.*, 71 USPQ2d 1630 (Fed. Cir. 2004); *Eolas Technologies Inc. v. Microsoft Corp.*, 73 USPQ2d 1782 (Fed. Cir. 2005); *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763 (Fed. Cir. 2005); *Union Carbide v. Shell Oil Co.,* 425 F.3d 1366, rehearing and rehearing en banc denied, 434 F.3d 1357 (Fed.Cir. 2006); *Zoltek Corp. v. United States,* 78 USPQ2d 1481 (Fed. Cir. 2006); *CNET Networks Inc. v. Etilize Inc.*, 85 USPQ2d 1352 (N.D.Cal. 2007).

10 It appears that these issues have become at least as important as jurisdictional and conflict of law issues. With respect to the adjudication of foreign patents *cf. Voda v. Cordis*, 38 IIC 344 (2007) = 2007 GRUR Int. 442; SCHAUWECKER, Zur internationalen Zuständigkeit bei Patentverletzungsklagen, 2008 GRUR Int. 96-105. *See* furthermore GLADSTONE MILLS III, A Transnational Patent Convention for the Acquisition and Enforcement of International Patent Rights, 88 JPTOS 958-996 (2006).

11 *See* FARRAND, Territoriality and Incentives under the Patent Laws: Overreaching Harms U.S. Economic and Technological Interests, 88 JPTOS 761 (2006); GUTTAG, When Offshore Activities Become Infringing: Applying § 271 to Technologies that "Straddle" Territorial Borders, 14 Richmond Journal of Law and Technology 1-54 (2007); KNIGHT, Software, Components, and Bad Logic: Recent Interpretations of Section 271(f), JPTOS 493-513 (2005); LEMLEY ET AL., Divided Infringement Claims, 33 AIPLA Q.J. 255 (2005); OSBORNE, A Rational Analytical Boundary for Determination of Infringement by Extraterritorially-Distributed Systems, 46 IDEA 587-617 (2006).

present contribution constitutes an attempt to review the recent judicial developments and to compare the solutions reached or proposed under U.S. as well as European, in particular German, patent law.

By means of exemplification of the issues at stake, it appears useful to summarize briefly the factual scenarios behind two of the most important recent U.S. decisions. In *Microsoft v. AT&T*, the plaintiff (AT&T) held a U.S. patent on a computer used to digitally encode and compress recorded speech. It was alleged that Microsoft's operating system 'Windows' infringed this patent since it incorporated software code that, when installed, enabled a computer to process speech in the manner claimed by the patent. Microsoft sold Windows to foreign manufacturers who installed the software onto the computers they sold. Microsoft sent each manufacturer a master version of Windows, either on a disk or via encrypted electronic transmission, which the manufacturer used to generate copies. These copies, not the master version sent by Microsoft, were installed on the foreign manufacturer's computers. The foreign-made computers were then sold to users abroad.[12]

In *NTP v. Research in Motion*,[13] the plaintiff asserted several system and method claims of five different patents. The defendant ('RIM') was a Canadian corporation and sold the disputed BlackBerry system, which allowed out-of-office users to continue to receive and send electronic mail, using a small wireless device. While RIM sold BlackBerry devices and software to users in the United States, an important element of the system, the BlackBerry 'Relay' component, *i.e.* the interface switch connecting wired and wireless email systems, was located in Canada.

While both cases clearly show essential differences (international distribution of an immaterial good *vs.* operation of an international telecommunication system), they share the common feature that the possible infringing acts have an extraterritorial element and that the domestic law where the patent is in force must provide an answer as to whether, notwithstanding this element, infringement is considered to have occurred.

Although the international framework provided by the TRIPS Agreement had some harmonizing effect, the structure and the wording of legal provisions dealing with the exclusive rights of the patentee differ to some extent between Europe and the United States. Most European countries follow closely or even *verbatim* the rules contained in the Community Patent Convention (CPC) concluded in 1975 and reshaped in 1989, which, although it has not entered into force, had a decisive impact on the legislation of most European countries.[14] In the following the provisions of the German Patent Act may serve as example of these laws. Its main provisions on infringement are Sections 9 to 11, which, in accordance with Article 25 to 27 CPC, deal with direct infringement (Section 9), contributory infringement

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[12] *Microsoft Corp. v. AT&T Corp.*, 82 USPQ2d 1400, at 1402 (Supreme Court 2007). Similar facts were present in *Eolas Technologies Inc. v. Microsoft Corp.*, 73 USPQ2d 1782 (Fed. Cir. 2005).

[13] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763 (Fed. Cir. 2005), *cert. denied*, 126 S. Ct. 1174 (2006).

[14] *See* BENYAMINI, Patent Infringement in the European Community, IIC Studies Volume 13, at 1 (1993).

(Section 10), and certain limits of the rights, *e.g.* for private or experimental use (Section 11). There is no specific provision dealing with extraterritorial aspects of patent infringement.

U.S. patent law defines in 35 U.S.C. § 271 what constitutes infringement. The most important parts of the provision are subsection (a) on direct infringement, subsection (b) on inducement of infringement and subsection (c) on contributory infringement. Of particular interest for the purposes of the present contribution is, however, that the U.S. legislator considered it appropriate to draw up, in the form of subsections (f) and (g), specific provisions for infringement in partly extraterritorial circumstances.[15] It will be considered later in more detail why these provisions were introduced and how their interpretation evolved in the case law of U.S. courts.

It is generally recognized that, independently of the presence[16] or absence[17] of an explicit limitation in the general infringement provisions, the exclusive rights conferred by a patent are restricted to the territory for which the patent has been granted.[18] However, this statement of the principle of territoriality needs some qualification in view of the above-described circumstances which show a mixture of territorial and extraterritorial elements. The decisive issue is whether an allegedly infringing act has a sufficiently strong connection with the territory of protection.[19] In this context, it has to be noted that the effect of the extraterritorial aspect may be different for different allegedly infringing acts, as well as for different types of claims, such as product claims or process claims.[20] The following analysis of the international reach of patent law is thus broadly divided into three parts, namely direct infringement of product claims, direct infringement of process claims and contributory infringement of product or process claims.

2. Direct Infringement of Product Claim

2.1 General

As it internationally follows from Article 28(1) TRIPS, the owner of a product patent generally enjoys broad protection. According to European patent law, a product claim is infringed if the product is made, offered, put on the market or used, or if it is imported or stocked for such purposes, by a person not having consent of the pat-

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[15] There are two further relevant provisions which are contained in statutes outside the U.S. Patent Act, namely 19 U.S.C. § 1337 (*see infra*, point 3.2) and 28 U.S.C. § 1498 (*see infra*, point 2.3).

[16] *See* 35 U.S.C. § 271(a) and (c).

[17] This is the situation under European patent laws.

[18] *See* German Federal Supreme Court (Bundesgerichtshof, BGH), February 29, 1968, Ia ZR 49/65, 1968 GRUR 195, 196 – *Voran*; SCHAREN in: BENKARD, Patentgesetz – Gebrauchsmustergesetz, Sec. 9 German Patent Act, notes 8 and 10 (10th ed. 2006). For the U.S. *see Pellegrini v. Analog Devices, Inc.*, 71 USPQ2d 1630 (Fed. Cir. 2004): '[As] the U.S. Supreme Court explained nearly 150 years ago in *Brown v Duchesne*, 60 U.S. (19 How.) 183 … the U.S. patent laws "do not, and were not intended to, operate beyond the limits of the United States."'

[19] KRASSER, Patentrecht 776 (5th ed. 2004).

[20] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763, 1789 (Fed. Cir. 2005); *see* also KRASSER, *supra* note 19, at 776.

entee.[21] In a similar vein, 35 U.S.C. § 271(a) provides exclusive rights in respect of the making, using, selling (including offering to sell) and importing of a patented product.

2.2 Making a Product

It is thus one of the key prerogatives of the patent owner to exclude others from the making of a patented product.[22] In this context, different elements of extraterritoriality may be present. Some of them carry less weight than others. In particular, facts that occur after the product has been made cannot preclude the finding of infringement: if all the manufacturing occurs within the country of protection, there is undoubtedly infringement even if the product is destined to be exported into a country where no protection exists.[23] This clearly shows that, from an economic perspective, the principle of territoriality does not consequently reserve only the domestic market to the patentee.[24]

On the other hand, it is recognized[25] that, in view of the same principle, the 'making' prong of the exclusive rights conferred by a product claim cannot be directly infringed by manufacturing acts if none of them is carried out domestically where the patent is in force. Only if the manufactured product enters the territory of protection, its import, sale or use will infringe the corresponding exclusive rights of the patentee. Whether and under what circumstances a foreign manufacturer may be considered to be a joint tortfeasor or to have actively induced a later-occurring domestic infringement, needs to be discussed in the context of these rights (*infra*, point 2.4).

It is a frequent phenomenon in our globalized world that not all the steps necessary to manufacture a patented product are carried out within one and the same

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[21] Sec 9 No. 1 German Patent Act, following Art. 25(a) CPC.

[22] *See* Art. 28(1)(a) TRIPS, 35 U.S.C. 271(a), Art 25(a) CPC, Sec 9 No. 1 German Patent Act.

[23] *See* STAUDER, *supra* note 5, 3 IIC 491, at 498 (1972), citing *Bullock Electric & Manufacturing Co. v. Westinghouse Electric & Manufacturing Co.,* 129 F. 105, 109 (6th Cir. 1904): 'While it is true that the monopoly of the plaintiff's patents did not extend beyond the limits of the United States, yet it would be no defense to say that the patented article had been made in the United States only for the purpose of being sold and used in a country to which the protection of the laws of the United States did not extend. The patentee is entitled to monopolize the making of his device in the United States as well as a monopoly of there selling and using it.' and a decision of the German Supreme Court (Reichsgericht) of April 3, 1884: 'Whoever, within the domestic territory, commercially 'makes' the product covered by the invention is doubtlessly punishable .... and can in no way be allowed to raise the defense that the goal of the manufacturing activity is located abroad, that it 'relates' only to foreign trade.'.

[24] KRASSER, *supra* note 19, at 775.

[25] *See* the explicit statement in *Rotec Industries, Inc. v Mitsubishi Corp.*, 55 USPQ2d 1001 (Fed. Cir. 2000): 'The alleged extraterritorial activities… are irrelevant to the case before us, because "the right conferred by a patent under our law is confined to the United States and its territories, and infringement of this right cannot be predicated of acts wholly done in a foreign country"' (quoting *Dowagiac Manufacturing Co. v. Minnesota Moline Plow Co.*, 235 U.S. 641, 650 (1915)); *MEMC Electronic Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1375 (Fed. Cir. 2005).

country. Thus, the question arises whether a patent proprietor can enforce his patent in situations in which only some of the manufacturing steps are performed in the territory of protection. The answer appears rather straightforward when the final step which brings the patented product into existence, *e.g.* the final assembly of a patented machine, occurs at a location where the patent is in force. Then infringement will have to be acknowledged.[26] More difficult to judge are, however, situations in which this final step occurs outside the territory of protection.

In the United States, the courts have been extremely reluctant to accept that a product claim can be directly infringed where the manufacturing steps carried out domestically have not yet led to the complete product. In the landmark decision *Deepsouth v. Laitram* handed down in 1972,[27] the Supreme Court held that the making or selling of unassembled products did not constitute direct infringement since a patent merely protects the complete and operable assembly of the patented product. It rejected the view of the lower instance that the manufacture of substantial parts of the invention (*i.e.* those which embody the inventive concept) was sufficient for direct infringement. The Supreme Court therefore concluded that a patent on a shrimp deveining machine had not been infringed by exporting its components for assembly abroad although the alleged infringer supplied all the parts of the patented machine, as well as instruction for their assembly. The language of the majority was plain:

> Our patent system makes no claim to extraterritorial effect …these acts of Congress do not, and were not intended to, operate beyond the limits of the United States … and we correspondingly reject the claims of others to such control over our markets …. To the degree that the inventor needs protection in markets other than those of this country, the … congressional intent [was] to have him seek it abroad through patents secured in countries where his goods are being used. (internal citations omitted)[28]

Since the factual circumstances underlying this decision included obviously evasive steps by the defendants to circumvent the patent, the result reached by the Supreme Court was perceived by many as hyper-technical and unfair to the patentee.[29] The apparent loophole in a patent system generally aiming at an effective level of protection became a matter of legislative concern which was resolved 12 years later by the introduction of a specific provision expanding the concept of contributory infringement extraterritorially in this kind of situations. This provision, *i.e.* 35 U.S.C. § 271(f), and its interpretation will be reviewed in more detail (*infra,* point 4.2).

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[26] KEUKENSCHRIJVER, in: BUSSE, Patentgesetz, Sec. 9 German Patent Act, note 132 (6th ed. 2003), citing with approval a decision of the Munich Court of Appeal, 1994 OLG-Rechtsprechung 116.

[27] *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 = 173 USPQ 769 (1972) = 1972 GRUR Int. 422 – *Deveiner II*.

[28] *Id.*, at 531.

[29] *See* STAUDER, *supra* note 5, 3 IIC 491, 504 *et seq.* (1972)

The legal situation in Europe is less clear. On the one hand, there is a body of case law, still cited with approval by parts of the legal doctrine,[30] holding that the term 'making' means any activity required for the production of the patented device and not only the ultimate act in the process of manufacture. According to this view, the fact that the ultimate step is carried out abroad does as such not suffice to escape the verdict of direct infringement. Any step necessary for the making is considered as infringing, at least if it is visibly and objectively related to the characterizing features of the patented product. Infringement was therefore acknowledged (a) where the defendant domestically manufactured parts of a patented apparatus and delivered them to clients for their assembly abroad, when the parts were exclusively suited to such assembly,[31] (b) where the defendant intentionally constructed a machine and its accessory device in Germany in such a manner as to allow any ordinary mechanic to modify them abroad by very simple measures into a form covered by the patent,[32] or (c) where the defendant made in Germany technical drawings of an installation and surveyed its assembly abroad although the assembled parts were manufactured abroad.[33]

It is very doubtful whether the broad interpretation of the term 'making' favored by German courts in the past can still be applied.[34] It appears to be based on the general civil law doctrine of joint tortfeasorship in that the alleged infringer is considered to take part, to actively induce or to contribute to the patent infringement. However, in contrast to the legal situation in force when most of the above decisions were taken, the current law contains specific rules on contributory infringement as set out in Section 10 German Patent Act. It follows from the wording of the provision that it does not apply where the essential means of the invention is delivered to customers abroad for the non-domestic use of the invention.[35] This makes it extremely difficult to argue that a manufacturer exporting parts of the invention can be held to directly infringe the patent.[36] Even in situations where the facts indicate that the alleged

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[30] *See* KÜHNEN in SCHULTE, Patentgesetz mit EPÜ, Sec. 9 German Patent Act, note 40 (7th ed. 2005), referring to German Federal Supreme Court, June 15, 1951, I ZR 59/50, 1951 GRUR 452 – *Mülltonne* (Garbage Bin). *See* furthermore German Federal Supreme Court, December 20, 1994, X ZR 56/93, 1995 GRUR 338 – *Kleiderbügel* (Coat Hanger).

[31] 40 RGZ 78, 80 = 1901 GRUR 152 – exzentrische Klauen. For further decisions *see* KEUKENSCHRIJVER, *supra* note 26, at note 133.

[32] German Supreme Court (Reichsgericht) of 30 August 1935, 1936 GRUR 236 – *Stabeisenbiegevorrichtung* (Device for Bending Iron Rods), summarized by STAUDER, *supra* note 5, 3 IIC 491, at 495 *et seq.* (1972). *See* also KRASSER, *supra* note 19, at 782.

[33] German Supreme Court (Reichsgericht), June 12, 1929, 124 RGZ 368, 371. This decision is criticized by SCHAREN, *supra* note 18, at note 12, and KEUKENSCHRIJVER, *supra* note 26, at note 132. Both commentators serve as judges of the German Federal Supreme Court.

[34] In the same vein SCHAREN, *supra* note 18, at note 34.

[35] For details *see infra*, point 4.1.

[36] It can be deduced form a *dictum* in a decision of the Federal Supreme Court, February 27, 1969, X ZB 11/68, 1969 GRUR 265 = IIC 258 (1970) – *Disiloxane* that the domestic manufacture of a chemical intermediate product and its supply for the manufacture of the final product abroad is not considered to be an infringement of the domestic patent on the final product. Only in exceptional circumstances (such as those underlying the *Deepsouth* decision of the U.S. Supreme Court) where all the parts of the patented device are manufactured domestically and

infringer actively induces or even controls the ultimate step in the process of manufacture carried out abroad, it cannot be neglected that it is outside the territory of protection where this ultimate step takes place, *i.e.* where the patented product is made. However, considering a person as a joint tortfeasor presupposes that all the occurring acts, taken together, amount to an infringement within the territory of protection.

A somewhat different situation with respect to a combination invention arises when the alleged infringer sets up and controls a patented system which is partly located extraterritorially. This may, in particular, occur in the field of telecommunications. In an older case decided by the predecessor court of the CAFC in 1976, the claim at issue was directed to a radio navigation system requiring stations transmitting signals that were received by a receiver, which then calculated position by the time difference in the signals. The defendant was operating three such transmitting stations, one of them being located in Norway. The master station which coordinated, monitored and synchronized the system was located within the United States. Since the only asserted claim required three transmitting stations, the court expressed doubts whether the defendant could be considered to have 'made' the system within the United States. It left the issue open since the 'use' alternative in Section 271(a) was considered to be infringed.[37]

2.3 Using a Product

A further key prerogative of the patent owner is to exclude others from any use of a patented product.[38] Since the physical use of a specific and concrete product falling under a patent normally occurs in the country where the product is located and since this location normally is in merely one country, extraterritorial aspects of infringing uses are rather rare.[39] Nevertheless, they do occur, in particular in the area of telecommunication patents where system claims are frequently sought and granted. In this context, the decisive issue is whether an act performed in the territory of protection infringes such a system claim even if components of the system are located partly in other countries.

In the United States an important precedent was set by the *Decca* decision[40] of the Court of Claims, the predecessor of the CAFC, already in 1976 (for the facts see *supra*, point 2.2). Although the case was actually decided within the context of 28 U.S.C. § 1498, *i.e.* a specific provision which regulates the compensation for the use of inventions by the U.S. government, the court's holdings are of general relevance since direct infringement under 35 U.S.C. § 271(a) is considered to be a

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are supplied together ('construction set') and where the device can be assembled easily and rapidly, it may be justified to hold that the device, albeit still in its unassembled state, was already made within the territory of protection. *See* KRASSER, *supra* note 19, at 782.

37 *See infra*, point 2.3.

38 *See* Art. 28(1)(a) TRIPS, 35 U.S.C. § 271(a), Art 25(a) CPC, Sec. 9 No. 1 German Patent Act.

39 In very specific situations, a foreign manufacturer or distributor may be held liable as infringing a domestic patent by contributing or inducing the domestic use of a patented product. *See infra*, point 2.4, for the parallel issue with respect to the 'selling' prerogative.

40 *Decca Ltd. v. United States,* 544 F.2d 1070 = 191 USPQ 439 (Ct. Cl. 1976).

necessary requirement for the application of the provision.[41] The court concluded that it was obvious that, although one of the stations was located on Norwegian soil, a navigator employing signals from that station was, in fact 'using' the station and that such use occurred wherever the signals were received and used in the manner claimed. In reaching that decision, the court found particularly significant 'the ownership of the equipment from the United States and the actual beneficial use of the system within the United States'.[42]

Almost thirty years later, the *Decca* decision served as the basis of the CAFC's conclusions in the BlackBerry infringement case *NTP v RIM*[43] the facts of which have already been summarized (*supra*, point 1). One of the issues to be decided was whether the defendant's customers[44] in the United States directly infringed RIM's patent claims on the integrated wired and wireless e-mail system although at least one critical element of the defendant's system, *i.e.* the 'interface' switch, was located in Canada. The court noted the added degree of complexity of the infringement analysis in that (1) the patented invention was not one single device, but rather a system comprising multiple distinct components and (2) the nature of those components or steps permitted their function and use to be separated from their physical location.[45] In contrast to the facts underlying the Supreme Court's *Deepsouth* decision, where both the act of making and the resulting patented invention were wholly outside the United States, the *BlackBerry* case involved a system that was partly within and partly outside the United States and related to acts that might be occurring within or outside the United States.[46] The court considered that the term 'use' had to be given a broad interpretation and that the *situs* of the infringing act was a purely physical occurrence. The use of a claimed system was the place at which the system as a whole was put into service, *i.e.* the place where control of the system was exercised and beneficial use of the system obtained. Based on this interpretation, it concluded that it was proper for the jury to have found that use of the plaintiff's asserted system claims occurred within the United States, since the defendant's customers 'controlled the transmission of the originated information and also

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[41] *Motorola, Inc. v. United States,* 221 USPQ 297 (Fed. Cir. 1984); *NTP, Inc. v. Research in Motion,* 75 USPQ2d 1763, at 1789 (Fed. Cir. 2005); *Zoltek Corp. v. United States,* 78 USPQ2d 1481, at 1483 (Fed. Cir. 2006). However, this view is not uncontroversial and has been sharply criticized by Judge Gajarsa in his dissenting vote in *Zoltek Corp. v. United States,* 78 USPQ2d 1481, at 1486 (Fed. Cir. 2006). 'result of an unchecked propagation of error'; 'neither ... need nor ... clear basis ... to attempt to support through logic, *post hoc,* what the NTP court has wrought through folly.'

[42] *See* the analysis of the *Decca* decision in *NTP Inc. v. Research in Motion Ltd.,* 75 USPQ2d 1763, at 1788 *et seq.* (Fed. Cir. 2005).

[43] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763 (Fed. Cir. 2005), *cert. denied*, 126 S. Ct. 1174 (2006).

[44] The court started from the premise that in order to find that the defendant committed active inducement or contributory infringement, it had to be shown that its customers directly infringed the patent under 35 U.S.C. § 271(a).

[45] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763, at 1787 (Fed. Cir. 2005).

[46] *Id.* at 1788.

benefited from such an exchange of information'. Thus the location of the Relay component in Canada did not preclude infringement.[47]

The *BlackBerry* decision has been criticized in legal literature for the reason that it did not focus on the patentably distinctive aspect of the claimed invention which, as it followed from the prosecution history, was the interface component and that it was not truly reconcilable with the holdings in *Decca* and other decisions[48] since it diverged from the 'control point' standard espoused in the prior case law.[49] This has led to the prediction that this economically highly important decision will not be the last word of U.S. courts on infringement by extraterritorially-distributed systems.[50]

2.4 Selling a Product

A further key prerogative concerns the commercial distribution of the patented product. Only the patent owner is allowed to offer or to sell the product.[51] In this context, different issues of extraterritoriality may arise. If an offer for sale is made in the country of protection, infringement occurs even if the product is delivered abroad.[52] This also holds true when the product is manufactured abroad and does not physically enter the country of protection. A more complex case was dealt with in 1960 by the German Federal Supreme Court.[53] There the defendant located in Germany manufactured a machine which as such did not fall under the patent in suit. However, he made an offer to his foreign customers to modify the machine abroad into the form covered by the patent. The court held that this constituted an infringement since it was considered obvious from the offer that the offeree would receive the machine from the offerer in its patent-infringing form.

Another interesting issue is whether the exclusive right to sell the patented product may be infringed by activities which are carried out in a foreign country but which have an impact in the territory of protection. U.S. courts have accepted this possibility in a number of decisions.[54] On the other hand, courts have also held that the tort of patent infringement occurs where the offending act is committed and not

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[47] *Id.* at 1789 *et seq.*

[48] *See Freedom Wireless, Inc. v. Boston Commun. Group, Inc.*, 198 F.Supp.2d 11 (D.Mass. 2002).

[49] *See* OSBORNE, *supra* note 11, at 602 *et seq*.

[50] OSBORNE, *supra* note 11, at 590. In *CNET Networks Inc. v. Etilize Inc.*, 85 USPQ2d 1352 (N.D.Cal. 2007) a district court found the asserted system claims not to be infringed. However, the extraterritorial elements were even stronger than in the *BlackBerry* case.

[51] *See* Art. 28(1)(a) TRIPS and 35 U.S.C. § 271(a). In Art 25(a) CPC and Sec. 9 No. 1 German Patent Act, the even somewhat wider term 'putting on the market' is used.

[52] *Cf.* Italian Supreme Court, April 3, 2003, Case No. 5112, *Aktiebolaget Hassle v. Effechem s.r.l.*, 35 IIC 1037 (2004) – *Omeprazole*, holding that the negotiation in Italy of transactions with a patented product constitutes a use reserved to the patent proprietor.

[53] German Federal Supreme Court, March 29, 1960, 1960 GRUR 423 – *Kreuzbodenventilsäcke* (Valve Equipped Bags with Crossseamed Bottoms); *see* MOSER V. FILSECK, Verletzung deutscher Patente durch Handlungen, die im Verkehr mit dem Ausland vorgenommen werden, 1961 GRUR 613; TETZNER, Verletzung deutscher Patente bei Auslandsgeschäften, 1980 GRUR 882, 887.

[54] The leading case is *Honeywell, Inc. v. Metz Apparatewerke*, 184 USPQ 387 (7th Cir. 1975) where a German manufacturer was held liable for active inducement.

where the injury is felt.[55] It therefore appears difficult to precisely define the boundary between what is permitted and what is not permitted in this area in an abstract manner. The factual circumstances of the individual case will be decisive.[56]

3. Direct Infringement of Process Claim

3.1 Using a Patented Process

With respect to process claims, the key prerogative of the patent proprietor is to exclude others from using the patented process.[57] Since a process claim normally defines a number of steps, it is comprised of a sequence of concrete actions and the use of a process necessarily involves doing or performing each of the steps recited.[58] The general rule therefore is that infringement only occurs if all the steps of the patented process are carried out.[59] This has the consequence that, in a situation involving partly extraterritorial activities, gaps of protection may appear.

Recent U.S. court decisions have strongly endorsed the above view. In *Zoltek Corp. v. United States*[60] the CAFC held that if a party practiced even one step of a patented process outside the United States, it avoided infringement liability and that a patent could not be used within the United States as required by § 271(a) unless each of the steps was performed within this country. This holding was reiterated in the *BlackBerry* case where the CAFC came to the conclusion that, in contrast to the situation in respect of the asserted system claims, the defendant's U.S. customers did not infringe the asserted method claims.[61]

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[55] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763, at 1789 (Fed. Cir. 2005), citing *N. Am. Philips Corp. v. Am. Vending Sales, Inc.,* 32 USPQ2d 1203 (Fed. Cir. 1994).

[56] *See* MAYER, Das US-Patent, 326 *et seq.* (3rd ed. 2003).

[57] *See* Art. 28(1)(b) TRIPS, 35 U.S.C. § 271(a), Art 25(b) CPC, Sec. 9 No 2 German Patent Act.

[58] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763, at 1790 (Fed. Cir. 2005).

[59] *See* KÜHNEN in: SCHULTE, *supra* note 30, at note 53; SCHAREN, *supra* note 18, at note 49. *Contra:* BENYAMINI, *supra* note 14, at 133, submitting that when the process is performed by more than one person, a direct infringement is committed by the person who completes the final step of the process, thereby achieving the result envisaged by the invention. An exception was also made in a recent decision of the Federal Supreme Court (February 27, 2007, X ZR 113/04, 2007 GRUR 773 = 39 IIC 106 (2008) – *Rohrschweißverfahren* (Pipe Welding Process)) a headnote of which reads as follows: 'If a welding process divided into a number of process stages specifies, in a first part of the process stages, the making of a data carrier with welding data, which is then used in a second part to control the welding process, the user of the data carrier uses the process with all its features if he carries out the welding process using the stored welding data.'

[60] 62 USPQ2d 1366 (Fed. Cir. 2002).

[61] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763, at 1790 (Fed. Cir. 2005): 'This is unlike use of a system as a whole, in which the components are used collectively, not individually. We therefore hold that a process cannot be used "within" the United States as required by section 271(a) unless each of the steps is performed within this country. In the present case, each of the asserted method claims of the ... patents recites a step that utilizes an "interface" or "interface switch", which is only satisfied by the use of RIM's Relay located in Canada. Therefore, as a matter of law, these claimed methods could not be infringed by use of RIM's system.' *See* furthermore *CNET Networks Inc. v. Etilize Inc.*, 85 USPQ2d 1352, at 1356 (N.D.Cal. 2007).

3.2 Direct Products of Process

There is a further important prerogative of the owner of a patent containing a claim to a manufacturing process: according to the TRIPS agreement and European law, the protection of a process extends to the product directly obtained by it.[62] Thus, in a situation where a patented process is performed abroad and its direct products enter the territory of protection, it does not make a difference under European law whether the patent contains a claim to the product *per se* or only a claim to the manufacturing process.

In the United States, the situation is more complex in view of the lack of a general provision equalling Articles 25(c) CPC and 64(2) EPC. Until 1988, the only remedy in such a case was to seek prohibition of the importation under Section 337 of the Tariff Act (= 19 U.S.C. § 1337[63]) which foresees powers of the International Trade Commission to investigate and stop, *inter alia*, the importation of products which are made, produced, processed, or mined under, or by means of, a process covered by the claims of a valid and enforceable U.S. patent. A patent reform of 1988 introduced Section 271(g) into the Patents Act, providing for a very similar patent law remedy,[64] although the latter contains a number of further conditions. Whereas the protection offered does not appear to equal that of Article 64(2) EPC and the relationship between these remedies as well as issues of detail are far from being uncontroversial,[65] the owner of a U.S. patent is not without arms when dealing with imported products made abroad by the patented process. The courts have, however, declined to apply Section 271(g) to information as an immaterial product of a drug screening process,[66] or to wireless electronic e-mail specially formatted by a patented process.[67]

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[62] *See* Art. 28(1)(b) TRIPS; Art 25(c) CPC, Sec. 9 No. 3 German Patent Act. The rule is also enshrined in Art. 64(2) of the European Patent Convention (EPC).

[63] The relevant part of the provision is § 1337(a)(1)(B)(ii). Before the enactment of its predecessor provision in 1940, the courts have held that the importation of an article produced abroad by a process covered by a U.S. patent was not an unfair trade practice; *see In re Amtorg,* 24 USPQ 315 (CCPA 1935).

[64] The provision reads: 'Whoever without authority imports into the United States or offers to sell, or uses within the United States a product which is made by a process patented in the United States shall be liable as an infringer …'

[65] On the one hand, the defences enumerated in Section 271(g) do not apply in actions under § 1337(a)(1)(B)(ii), *see Kinik v. International Trade Commission,* 70 USPQ2d 1300 (Fed. Cir. 2004). On the other hand, in *Amgen Inc. v. International Trade Commission*, 86 USPQ2d 1188 (Fed. Cir. 2008) (Linn, J., dissenting in part), the Federal Circuit has recently decided that the safe harbor provision of Section 271(e)(1), which exempts acts related to the development and submission of information, inter alia, to the FDA and which received a broad interpretation by the Supreme Court in *Eli Lilly & Co. v. Medtronic Inc.* (15 USPQ2d 1121 (1990)) and *Merck KGaA v. Integra Lifesciences I, Ltd,* 74 USPQ2d 1801 (2005), also applied in proceedings under 19 U.S.C. § 1337.

[66] *See Bayer AG v. Housey Pharmaceuticals*, 340 F.3d 1367 = 68 USPQ2d 1001 (Fed. Cir. 2003).

[67] *See NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763, at 1795 (Fed. Cir. 2005): 'Because the "transmission of information," like the "production of information," does not entail the manufacturing of a physical product, section 271(g) does not apply to the asserted method claims in this case any more than it did in *Bayer*.' On the other hand, in *CNET Networks Inc. v. Etilize Inc.*, 85 USPQ2d 1352, at 1359 *et seq.* (N.D.Cal. 2007) an electronic product catalog was considered to be a product within the meaning of Section 271(g).

4. Contributory Infringement of Product and Process Claims

4.1 The General Provisions

The concept of indirect or contributory infringement has been developed for situations where a person uses an invention without actually infringing the patent claims as such, and facilitates direct infringement by supplying elements of the invention to unauthorized persons who directly use the invention[68]. The concept thus appears *prima facie* of primordial importance when considering the extraterritorial reach of patent law. Nevertheless, under U.S. as well as under European patent law, the general provisions dealing with this type of infringement contain inherent limits.

Article 26 CPC and Section 10 German Patent Act[69] explicitly stipulate that, in order to apply the provision, the supply of the means relating to an essential element of the invention must be within the territory of protection. Consequently, delivery abroad does in general not amount to contributory infringement.[70] In a recent decision of the German Federal Supreme Court,[71] an exception has, however, been made to this principle. It was held that an indirect patent infringement could also be committed by supplying means that related to an essential means of the invention abroad if they were to contribute to the manufacture of a product there according to the invention which was intended for supply to Germany.

The general provision of 35 U.S.C. § 271(c) contains a similar territorial restriction in that only whoever offers to sell or sells *within the United States* a material part of the invention shall be liable as a contributory infringer. This limitation was, however, more than compensated with the introduction of a specific extraterritorial reach provision which will be discussed in the following.

4.2 35 U.S.C. § 271(f): Specific Provision with Extraterritorial Reach

In 1984, the U.S. Congress enacted legislation in order to close the perceived loophole in the U.S. patent enforcement system revealed by the *Deepsouth* decision of the Supreme Court.[72] In order to prevent what was regarded as an unfair evasion of domestic patent law, the newly introduced Section 271(f) established two separate but basically similar forms of infringement in situations with extraterritorial aspects. The first form resembles Section 271(b) defining active inducement and concerns the supply of at least a substantial portion of the components of a patented invention in or from the U.S. for combining these components outside

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[68] BENYAMINI, *supra* note 14, at 173.

[69] *See* generally NIEDER, Die mittelbare Patentverletzung – eine Bestandsaufnahme, 2006 GRUR 977-983. Cf. furthermore HÖLDER, Contributory Patent Infringement and Exhaustion in Case of Replacement Parts – Comment on a Recent Supreme Court Decision in Germany, 36 IIC 889-899 (2005).

[70] German Federal Supreme Court, July 5, 2005, X ZR 14/03, 2005 GRUR 845 – *Abgasreinigungsvorrichtung* (Device for Cleaning Waste Gas).

[71] German Federal Supreme Court, January 30, 2007, X ZR 53/04, 2007 GRUR 313 = 38 IIC 607 (2007) *Funkuhr II* (= Radio Clock II).

[72] *See supra*, point 2.2.

the U.S.[73] The second form is reminiscent of Section 271(c) defining contributory infringement and concerns the supply of only a single component from the U.S. if that component is especially adapted for use in the invention.[74] The legislation does not give a definition of its key terms such as 'component' and 'combined'.[75] The main objectives expressed by the legislator were to promote confidence in U.S. patents, thereby fostering U.S. innovation and reducing U.S. unemployment caused by foreign competition, and to avoid encouraging manufacturing outside the United States.

In the recent past the extraterritorial infringement provision of Section 271(f) has been in the center of several important patent decisions. The key issue of these decisions was whether the provision which was conceived as a legislative response to a rather specific situation (supply of an unassembled machine for assembly and use abroad) could also be applied in different circumstances. While the CAFC has been largely in favor of an extensive interpretation of the provision, the Supreme Court struck a significant blow to such interpretation in its decision *Microsoft v. AT&T*.

A first step in the expansive reading of Section 271(f) occurred when it was considered not only to apply to mechanical devices but also to other products including chemical compounds.[76] This meant that supplying particular unpatented ingredients to be used in making those 'chemical combinations' could entail liability under the provision.

More controversial is the question whether the provision is capable of giving extraterritorial protection to process patents. In view of the language which *prima facie* makes such an interpretation rather difficult, courts were in the beginning very reluctant to embrace it. In *Standard Havens Prods. v. Glencor Indus.,*[77] a decision handed down in 1991, the CAFC expressed the view that the provision of Section 271(f) was not implicated when judging whether a process patent was infringed where the defendant supplied a product for use abroad in the patented process.

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[73] 35 U.S.C. § 271(f)(1) reads: 'Whoever without authority supplies or causes to be supplied in or from the United States, all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.'

[74] 35 U.S.C.§ 271(f)(2) reads: 'Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial non-infringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside the United States in a manner that would infringe the patent if such combination occurred within the United States shall be liable as infringer.'

[75] FARRAND, *supra* note 11, at 768.

[76] *Lubrizol Corp. v. Exxon Corp.*, 696 F.Supp. 302 (N.D. Ohio 1988); *W.R. Grace & Co. v. Intercat, Inc.*, 60 F.Supp.2d 316, 320 *et seq.* (D. Del. 1999); *Union Carbide v. Shell Oil Co.*, 425 F.3d 1366, *rehearing and rehearing en banc denied*, 434 F.3d 1357 (Fed. Cir. 2006).

[77] 953 F.2d 1360 (Fed. Cir. 1991).

Although the appeal court did not give any detailed reasons for its view, the decision was endorsed by several later district court decisions.[78]

It came therefore as a surprise that in its decision *Eolas Technologies Inc. v. Microsoft Corp.*[79] the CAFC found that the statutory language of Section 271(f) did not limit its scope of application to patented 'physical structures'. The court was dealing with a factual setting very similar to that of its later decision *AT&T v. Microsoft* recently overruled by the Supreme Court. The claimed invention allowed a user to use a web browser in a fully interactive environment. The plaintiff alleged that certain aspects of Microsoft's Internet Explorer incorporated the patented invention and claimed royalty damages for both foreign and domestic sales of the operating system 'Windows' with the Internet Explorer. Microsoft had exported a limited number of golden master disks containing the software code for the Windows system to manufacturers abroad who used that disk to replicate the code onto computer hard drives for sale outside of the United States.

The court considered that software code alone qualified as a patentable process and software code claimed in conjunction with a physical structure, such as a disk, as a patentable manufacture invention under Section 101. While it may not have been strictly necessary to reach the conclusion of process claim infringement according to Section 271(f) in view of this double nature (product/process) of the invention,[80] the court put forward its view that the term 'patented invention' used in Section 271(f) was broad and inclusive, and that every component of every form of invention deserved the protection under this section. An important argument of the court was placed on the TRIPS principle that patent rights should be enjoyed without discrimination as to the place of invention and the field of technology. It deduced from this principle that process inventions should not be treated differently from structural products. Thus, a 'component' of a process invention would encompass method steps or acts. While the decision is not wholly unambiguous in this regard, it appears that the court considered the supply of the master disc to be the supply of a step of the patented process. The *Eolas* decision withstood a petition for rehearing and rehearing *en banc*. Also, a petition for a writ of certiorari was denied by the U.S. Supreme Court.

The view that Section 271(f) also covers process inventions was endorsed in a further decision. In *Union Carbide Corp. v. Shell Oil Co.*[81] the defendant (Shell) supplied a tangible, unpatented catalyst from the U.S. and the catalyst was used

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[78] *Enpat, Inc. v. Microsoft Corp.*, 6 F. Supp 2d 537 (E.D. Va. 1998); *W.R. Grace & Co. v. Intercat, Inc.*, 60 F.Supp.2d 316, 320 *et seq.* (D.Del. 1999); *Synaptic Pharm. Corp. v. MDS Panlabs, Inc.,* 265 F.Supp.2d 452, 464 (D.N.J. 2002): 'Congress knew how to protect against foreign use of process patents, and chose to limit such protection to uses which result in the introduction of products into the U.S. ...'; *Imagexpo L.L.C. v. Microsoft Corp.*, 299 F.Supp 2d 550 (E.D. Va. 2003).

[79] 73 USPQ2d 1782 (Fed. Cir. 2005) = 2005 Mitteilungen der deutschen Patentanwälte (Mitt.) 305.

[80] According to the court, process and product – software and hardware – are practically interchangeable in the field of computer technology since, on a functioning computer, software morphs into hardware and vice versa at the touch of a button.

[81] 425 F.3d 1366, *rehearing and rehearing en banc denied*, 434 F.3d 1357 (Fed. Cir. 2006).

abroad in a patented process. Although the catalyst was not a 'step' or 'act', the CAFC reversed the district court's holding that Section 271(f) could not apply.

However, the issue cannot yet be considered as settled altogether. Not only were the decisions heavily criticized by some commentators who found it difficult to understand how 'steps' or 'acts' of a patented method could be 'supplied' in 'uncombined' form for 'combining' abroad.[82] Also several CAFC judges have expressed their discontent with the expansion of Section 271(f) to method claims. On the one hand, the dissent of those judges who, in contrast to the majority, would not have denied rehearing *en banc* in *Union Carbide* was at least partly based on this issue. On the other hand, in the *BlackBerry* decision[83] the competent CAFC panel considered it difficult to understand how one might supply or cause to be supplied all or a substantial portion of steps of a patented method in the sense contemplated by the phrase 'components of a patented invention' in Section 271(f). Furthermore, in *Microsoft v. AT&T,* the Supreme Court expressly reserved its opinion with respect to the issue whether an intangible method or process qualifies as a 'patented invention' under Section 271(f).[84]

The last-mentioned Supreme Court decision focused on a further issue of interpretation which may arise in connection with patent claims involving computer software, namely whether a person infringes the provision if he sends computer software either on a disk or via electronic transmission to foreign manufacturers which install copies of the software on computers to be sold abroad. The majority opinion written by Justice Ginsburg approached the issue in two steps. First, it examined whether software can be considered as a 'component' for the purposes of Section 271(f). In so far, a positive conclusion was reached, with the proviso, however, that it was not the software in the abstract (the instructions themselves detached from any medium) but the concrete copy (*e.g.* on a disk) which had to be regarded as the component.[85] Software uncoupled from any medium was considered to be comparable to blueprint, which may contain precise instructions, but is not itself a combinable component of a device.[86] The next step of the analysis consisted in ascertaining whether the component of the computers involved had been supplied form the United States. In this respect, the Supreme Court came to a negative conclusion and overruled the decision of the Federal Circuit:[87] the wording of the provision required the very components supplied from the United States, and not copies thereof, to trigger Section 271(f) liability. 'Supplying' was an activity separate and distinct from any subsequent 'copying, replicating, or reproducing – in effect manufacturing'.[88]

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[82] FARRAND, *supra* note 11, at 774: 'logical inconsistency'.

[83] *NTP Inc. v. Research in Motion Ltd.*, 75 USPQ2d 1763, at 1794 (Fed. Cir. 2005).

[84] *Supra* note 13, 82 USPQ2d 1408. The issue was not relevant to the decision since the invention before the Supreme Court was a tangible thing, *i.e.* a speech-processing computer.

[85] *Microsoft Corp. v. AT&T Corp.*, 82 USPQ2d 1400, 1408 (Supreme Court 2007).

[86] *Id.*, quoting *Pellegrini v. Analog Devices, Inc.,* 71 USPQ2d 1630 (Fed. Cir. 2004).

[87] *AT&T Corp. v. Microsoft Corp.*, 75 USPQ2d 1506 = 2005 GRUR Int. 948.

[88] *Microsoft Corp. v. AT&T Corp.*, 82 USPQ2d 1400, 1410 (Supreme Court 2007), citing from Judge Rader's dissent in the Federal Circuit's decision.

The decision is not only important for the rather narrow issue it decided. The court in fact acknowledged from the outset that plausible arguments could be made for and against extending Section 271(f) to the conduct charged as infringing the plaintiff's patent. Nevertheless, it considered the provision as an exception to the general rule that the patent law does not apply extraterritorially and therefore resisted giving it an expansive interpretation. Citing the *Deepsouth* decision with approval ('our patent system makes no claim to extraterritorial effect; these acts of Congress do not, and were not intended to, operate beyond the limits of the U.S.; and we correspondingly reject the claims of others to such control over our markets'), the Supreme Court framed what it described as a 'presumption against extraterritoriality' in very clear words: 'The presumption that U.S. law governs domestically but does not rule the world applies with particular force in patent law'.[89]

5. Final Conclusions

The extraterritorial reach of patent law remains a complex topic which comprises numerous controversial issues. Comparative law shows that, on the basis of similar, albeit not congruent, legislation, different approaches have been used in the jurisdictions considered. Whereas in the past German courts have shown willingness to construe the general provisions on direct infringement in a manner that gave patentees some protection in circumstances with extraterritorial elements, U.S. courts were very reluctant to follow this road, thereby causing a reaction by the legislator which consisted in the introduction of specific 'extraterritorial' infringement provisions into U.S. patent law.

The inherent limits of both approaches become more and more apparent. In Europe, it may be seriously doubted whether the rather broad interpretation endorsed in older German case law will withstand the test of time without modification. In the United States, the Supreme Court's embracing of a presumption against extra-territoriality in its *Microsoft* decision has struck a significant blow to all attempts to give an expansive reading to a provision which was intended to close a loophole in the protection of the owners of U.S. patents.

As a consequence, significant gaps of protection exist, in particular if the patent proprietor has defined his invention primarily in the form of process claims.[90] Since a patented process is generally characterized by a sequence of steps, international activities (e.g. in the area of telecommunications) carried out partly outside the territory where the patent is in force may easily escape the verdict of infringement.

The old advice given in the U.S. Supreme Court's *Deepsouth* decision to seek protection abroad by obtaining foreign patents may not always be very helpful in

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[89] *Id.*

[90] In a recent decision which dealt with divided infringement claims in a purely domestic setting, the Federal Circuit expressed the view that many problems of enforcement could be avoided by proper claim drafting since a patent applicant should usually be able to structure a claim to capture infringement by a single party. *See BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373 (Fed. Cir. 2007).

these circumstances: even if an inventor had secured protection in all the countries where the allegedly infringing activities occur, it could still be argued that none of the patents was infringed since none of the acts, when considered separately in a 'territorially split up' perspective, does amount to a complete carrying out of the patented process. However, at least in these circumstances, it appears to be justified to replace the purely territorial perspective by an integrated one which leads to a finding of infringement, when the relevant acts taken together would infringe all the parallel patents.

Synergies Created by International Cooperation in the Patent Area?

Jürgen Schade

1. Starting Point

I have not only shared some good times with Joseph Straus at the Max Planck Institute, but we are also united in our appreciation of international patent law and the people working in foreign and international IP institutions. Consequently, the author takes a considerable risk in entering into the field of international cooperation in the patent area, because the person honoured is not only held in high esteem, but also has strong analytical skills and a wealth of life and work experience.

It is only very recently that intellectual property has attracted strong attention in political and public debate.[1] International cooperation for the protection of patents and copyrights as well as combating product counterfeiting and trade mark piracy played an important role at the G8 Heiligendamm summit.[2] Conferences during the German EU Council Presidency dealt intensively with cooperation in the field of intellectual property in the European Union[3], the United States of America and Asian countries such as the People's Republic of China, Japan and the Republic of Korea.[4] The high esteem enjoyed by intellectual property and the institutions in charge of the grant and protection of intellectual property[5] is not only encouraging,

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1 *Cf. e.g.* 'Jagd auf geistige Werte', HANDELSBLATT, May 8, 2007, 9, stating that the two most important world trade blocs should have functioning and effective rules for the protection of intellectual property.

2 *Cf. e.g.* 'Merkel strebt mit Amerika besseren Patentschutz an. Dialog mit Schwellenländern auf dem G-8-Gipfel', FAZ, March 20, 2007, 11.

3 BMJ/BDI Conference on March 29 and 30, 2007, 'A Europe of Innovation – Fit for the Future?' (*e.g.*, lectures by Zypries, 'European Patent Policy in the View of the Presidency' and McCreevy, 'European Patent Policy in the View of the European Commission.'); Council Doc. 10710/07 of June 15, 2007 – Enhancing the patent system in Europe; 'Zukunft der Patentgerichtsbarkeit in Europa', Bundespatentgericht Munich, symposium on June 25 and 26, 2007.

4 BMJ/BDI Conference, *supra* note 3, Panel I 'Intellectual Property in Asia in the 21st Century – Towards Increased Cooperation?' and Panel III 'International Harmonisation of Patent Law – Any Consensus in Sight?'

5 In this context, it is by no means intended to ignore critical voices as for instance in the expert report of the scientific advisory board of the Ministry of Economics and Technology, 'Patentschutz und Innovation', www.bmwi.de/BMWi/Navigation/Presse/pressemitteilungen,did=205080.html (as of Jan 2008), mentioning undesirable developments in the European patent system and 'patent thickets.' The focus study on Germany's technological performance, produced by the Fraunhofer Institute for Systems and Innovation Research, with the title 'Erfindungen kontra Patente' (Karlsruhe, Dec 2003), is also remarkable. It argues (on page 2) that patents have been and still are essential and useful indicators for the analysis of R&D activities, but that the increase of 'strategic patents' was the driving force behind patent dynamics in the last few years before 2000. The US National Academy of Sciences ('A Patent System for the

but also a condition for public awareness of the importance of IP protection.[6] At the same time it is also a huge challenge for society, business and the big intellectual property offices.[7] The latter have to keep pace with increasing numbers of applications which have reached an alarming scale indeed.[8]

Patents should be granted faster, at lower cost and at a high quality level[9], according to the President of *Bundesverband der Deutschen Industrie* (BDI), Jürgen Thumann, as he pithily summed up the expectations of German industry, at the patent conference held within the framework of the German EU Council Presidency, in late March 2007. These expectations are ubiquitous in industry, both within Europe and outside Europe. However, they contrast sharply with the workload with which major patent offices, in particular, have to cope. This gives rise to the question of whether Europe and the international community of states should follow a common strategy to achieve the goal of appropriate worldwide protection of intellectual property and enforcement of IP rights at the national and international levels.

21st Century' (2004), Executive Summary) and the Federal Trade Commission ('To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy', Executive Summary (2003), available at <www.ftc.gov/opa/2003/10/cpreport.shtm> (as of January 2008)) identify deficits in the US patent system and make a series of recommendations.

6 Frequently, consumers are not aware of the damage caused by product counterfeiting and trade mark piracy. This statement was made at the European symposium, 'Ethik – Technik – Management: Verantwortung in Einer Europäischen Unternehmenskultur', June 24 and 25, 2007, Wartburg near Eisenach, *e.g.* Schade, 'Produkt- und Markenpiraterie – eine Gefährdung für den Wirtschaftsstandort Deutschland?'

7 *Cf.* also European Patent Office, Scenarios for the future (2007) and Interviews for the future (2006).

8 In 2007, the United States Patent and Trademark Office (USPTO) received 438,578 patent applications and a good 54,000 PCT applications (USPTO, Performance and Accountability Report, Fiscal Year 2007). The Japan Patent Office (JPO) received 408,674, the State Intellectual Property Office of the PR of China (SIPO) a good 210,000, the Korean Intellectual Property Office (KIPO) 166,189 and the European Patent Office (EPO) 135,183 – all data for 2006. In contrast, the German Patent and Trade Mark Office (DPMA) received only about 62,100 patent applications in 2007. The applications pending at the USPTO and the JPO are at a high level, that is 1,112,517 and 838,000, respectively, and the average response time of the office until the first action is 25.3 and 26 months, respectively (USPTO Report Fiscal Year 2007, at 111; JPO Annual Report 2006, at 10). In contrast, the first action is issued within the priority year at KIPO and the DPMA, that is after 9.8 (on average) and 10 months (in three fourths of the cases), respectively. According to a recent analysis of scenarios conducted by the EPO, the IP world will continue to experience 'ever-increased numbers of patent applications' through to 2025 (in the MARKET RULES SCENARIO, in: European Patent Office, Scenarios for the future, 44 *et seq.* (2007).

In a press statement with the title 'Pokerspiel unter Reichen,' the President of the European Patent Office said that the overkill of IP requests at patent offices was an armament race to the detriment of small and medium-sized businesses, constituting a type of misuse of the patent system, HANDELSBLATT, July 23, 2007, p. 8.

9 *See supra* note 3, JÜRGEN THUMANN, 'Patent Policy for More Innovation – Expectations of the Business Sector.' This opinion was shared by the Federal Minister of Justice and the European Commissioner for Internal Market and Services in their speeches.

2. Approaches to Worldwide Harmonisation of Substantive Patent Law

In principle, everybody agrees that we need a common patent strategy for Europe[10] and for the international community of states[11], because world trade and intellectual property have been inseparably interwoven by the establishment of the World Trade Organisation (WTO) and by the adoption of the TRIPS Agreement in 1994, which presently has 151 contracting states.[12] Both the Paris Convention for the Protection of Industrial Property[13] (with 172 contracting states) and the Patent Cooperation Treaty (PCT)[14] (with 138 contracting states) are currently fully valid and vigorously applied, as evidenced by the constantly increasing number of international applications. The OECD member states, however, with the USA and Japan in the lead, are the source of the highest filing activities and are rapidly butting against the limits of this system.[15]

However, we still face a stony path to the common goal of harmonized worldwide patent protection. The Community patent (for the EU) and the European patent litigation system are not yet in sight.[16] The negotiations at the World Intellectual Property Organization (WIPO) in Geneva on the Substantive Patent Law Treaty (SPLT) have failed to pass the necessary threshold. The developing countries and transitional countries, headed by Argentina, Brazil, Egypt, India and South Africa, hold the view that an agenda emphasising their fields of interest is paramount.[17] Firstly this applies to (free) licences for pharmaceuticals required for the national health care systems. Secondly this group of countries is seeking to raise awareness

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[10] *See supra* notes 3, 4 and 9.

[11] The Patent Law Treaty (PLT) of 1 June 2000 is in force in 17 states (*see* 2008 OJ EPO 255). It is limited to the harmonisation of formal requirements. The Substantive Patent Law Treaty (SPLT) aims at harmonising substantive patent law beyond the TRIPS Agreement.

[12] *Cf.* SCHADE, Editorial, 38 IIC 517 (2007); 2008 EPO 262.

[13] 2008 OJ EPO 248.

[14] 2008 OJ EPO 252.

[15] The question whether the constantly increasing number of patent applications worldwide constitutes also an incentive for the development of new technologies and whether the examining patent offices ensure the quality of granted patents cannot be explored in detail in this context. Doubts are appropriate, *see supra* note 5 and the TREES OF KNOWLEDGE SCENARIO, 'The world had been swamped by a flood of trivial patents and excessive copyright which many started to consider as a 'pollution' of the system,' in European Patent Office, Scenarios for the future 80 (2007).

[16] *Cf.* BMJ/BDI Conference, *supra* note 3, lectures by Zypries and McCreevy.

[17] 'For the Establishment of a Developmental Agenda for WIPO, *WIPO document WO/GA/31/11*, submitted to the General Assembly of the World Intellectual Property Organization (WIPO), which had been supported by all developing countries. In June 2007, a meeting of the Provisional Committee on Proposals Related to a WIPO Development Agenda (PCDA) took place, emphasizing projects promoting transfer of technology to developing countries, *see* 2007 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.), 787. For further details *see* STRAUS/KLUNKER, 'Harmonisation of International Patent Law,' 38 IIC 907, 911 *et seq.* (2007).

of traditional knowledge, genetic resources and folklore as key IP areas.[18] Above all they insist that the indication of origin of genetic resources should be an area of application for intellectual property protection; and that the failure to provide such protection would lead to the rejection of efforts to counteract the so-called biopiracy of some corporations.[19]

In contrast, the 'Group B' countries, headed by the USA, insist on a 'pragmatic' agenda enabling harmonisation of substantive patent law to clear the way for a worldwide harmonised patent granting practice. To achieve this aim, meetings of 'Group B' have been held outside the ambit of WIPO, augmented by additional members, particularly from the European Union, now called B+ meetings.[20] It has turned out that the negotiations between the USA and the European countries are not easy.[21] At present, it is not foreseeable if, when and with whom an agreement on the harmonisation of substantive patent law will be concluded. Consequently, a great breakthrough in the reduction of the workload of patent offices by an exchange of harmonised work results is not expected to come soon.

3. Strategies of the Large Patent Offices to Master the Workload

Since the workloads of the large patent offices are increasing year by year, the offices cannot wait for an international substantive patent law treaty to reduce their workload. Rather they feel the need to deal with this problem at the operational

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[18] STRAUS, The Impact of the New World Order on Economic Development – The Role of the Intellectual Property Rights System., 6 J. Marshall Rev. of Intell. Prop. L. 1 (2006). Straus points out that the introduction of the WTO and the TRIPS Agreement caused a remarkable economic boom in developing countries and threshold countries, *id.*; *see* STRAUS/KLUNKER, *supra* note 17, at 913 *et seq.*

[19] Straus even points out that the countries of the Andean Community, and with them Argentina and Brazil, have specifically barred biological material from protection, even if isolated from its natural environment, STRAUS, *supra* note 18, at 16.

[20] Initially, an 'Exploratory Meeting Concerning the Future of Substantive Patent Law Harmonization' took place at the USPTO in Alexandria, USA, on February 3 and 4, 2005. There it was resolved that the industrialised countries should press ahead with the efforts to harmonise patent law and to submit the results to the Standing Committee on the Law of Patents of WIPO (SCP) at a later date. Two working groups of experts were established for this purpose. Group I (first package: novelty, inventive step, grace period and prior art) met in April and November 2005 in Munich. Further meetings took place in Tokyo in March and November 2006.

[21] The policy of the European states was again discussed in the meeting of the EPO Administrative Council in Munich, from June 26 to 29, 2007, and its central points were supported by the vast majority of the delegations, *cf.* CA/116/07e. However, the UK delegation held the view that the grace period should be circumscribed, CA/PL 15/07e. The Group B+, particularly the US and JP delegations, did not agree with the cornerstone paper. The US delegation was willing to give up the first-to-invent principle only if important countries introduce the US grace period system. For further details *see* STRAUS/KLUNKER, *supra* note 17, at 932 *et seq.*

level. An obvious measure would be to hire additional patent examiners.[22] However, the possibilities are limited. Frequently, there are not enough financial resources. Another problem is that newly recruited patent examiners have to undergo a long training.[23] Furthermore, all major offices make efforts to optimise their business processes, particularly, by introduction of online filing, electronic case files and extensive electronic search and documentation systems.[24] In addition, IP processes are optimised.[25] Technical tools may help to make the work of patent examiners more efficient since they allow better analysis of the complexity of the technical teaching of the subject-matter of the invention. The intellectual process of patent search and patent examination can only be ensured by highly-trained expert staff who are well-paid and who undergo further training[26]. At the same time, all sides emphasise that the quality of patent examination should not suffer due to the volume of applications processed. That is why examining offices direct attention to the (preliminary) results of others, above all other patent offices, with an eye to creating possible synergies by means of international cooperation.[27]

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[22] In 2006, the USPTO hired an additional 1,218 patent examiners to reduce the workload. In 2007, it continued hiring patent examiners at the same rate. At the end of the fiscal year 2007, the USPTO workforce was composed of 8,913 federal employees, including 5,477 patent examiners (*cf.* Report Fiscal Year 2007, at 13). In 2006, 208 new examiners joined the EPO. The total staff was 6,319, including 4,363 A grades (*cf.* Annual Report 2006, at 55 and 57) and 3,555 examiners in search, examination and opposition (*cf.* Trilateral Statistical Report 2006, at 10). In Fiscal Year 2007 the JPO recruited an additional 99 patent examiners, thus increasing the number to 1,567 (Trilateral Statistical Report 2006, at11). In 2005, the KIPO recruited 170 patent examiners, thus increasing the number of examiners from 453 in 2002 to 728 in 2005 (*cf.* Annual Report 2006*,* at 22).

[23] The DPMA assumes that the training of examiners takes 18 months, performed mainly at the workplace, and that they will reach a 100% performance level after three years.

[24] *Cf.* DPMA Annual Report 2006, at 35 to 37 or JPO Annual Report 2006, Chapter 3, 'Support for Activities through Information Technology', at 72.

[25] KIPO Annual Report 2006, 'Improvement of IP administration', at 20; *see* also DPMA Annual Report 2006, at 3.

[26] DPMA patent divisions organise field trips to industrial enterprises to be able to keep track of the latest technical developments in certain sectors of industry and to become acquainted with actual requirements in practice. Salaries of DPMA examiners should probably be higher, as revealed by a glance at the salaries of EPO examiners and development engineers in industry.

[27] The EPO, JPO and USPTO have engaged in exchange for many years to benefit from the practical experience of the other offices, as was also recommended by the National Academy of Sciences in 2004. *See supra* note 5, at 5 (Sixth Criterion: 'Greater integration of … the three major patent systems would reduce ...costs…'). For some years now, that kind of cooperation has also taken place between the JPO, KIPO and SIPO (PR China). The heads of these five offices met in Honolulu, Hawaii, on May 11 and 12, 2007, to exchange views and explore approaches for coping with the workloads, *cf.* CA/108/07. Let us leave aside the question of whether that meeting actually was the get-together of the five largest offices in the world, as 'I. Introduction' of the document boasts.

4. Existing Cooperation in the Field of Patent Law at the European and International Levels

In the field of intellectual property, Europe and the international community of states have a more than 125-year-old tradition of cooperation, which started in the patent area in 1883 with the Paris Convention for the Protection of Industrial Property, which now has 172 contracting states.[28]

4.1 The European Patent Convention

At the European level, the European Patent Convention (EPC)[29] was established 35 years ago. It has unified and centralised the granting of patents for its (currently 34) contracting states.[30] The European patent has also proved to be the most important industrial property right for patents in Europe.[31] In contrast, neither the Convention for the European patent for the common market of 1975 nor the Agreement relating to Community patents of 1989 nor the drafts of the European Commission for a Regulation on the Community patent and for establishing a Community Patent Court of 2002 have become effective.[32] With the exception of some directives[33], further attempts at harmonisation at the European level have failed.[34] With regard to agreements, Europe can serve to a limited extent only as an appropriate example for enhancing synergies by international cooperation. Rather, the European Union is still facing the task of creating respective synergies in Europe.[35]

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[28] 2008 OJ EPO 248.

[29] Convention on the Grant of European Patents of 5 October 1973, last amended on December 10, 1998 and revised on November 29, 2000 (EPC 2000) (EPO, 12th ed. 2006); *see* also SINGER/STAUDER, The European Patent Convention (3rd ed. 2003). The EPC 2000 entered into force on December 13, 2007.

[30] 2008 OJ EPO 265.

[31] In 2006, 135,183 patent applications were filed at the European Patent Office, 62,780 patents were granted and 69,577 international searches were performed (Annual Report 2006, at 88, 94, 98).

[32] Convention for the European Patent for the Common Market of 15 December 1975, [1976] OJ (EEC) 1976 L 17, p.1; Agreement Relating to Community Patents of 15 December 1989, [1989] OJ (EEC) L 401; Proposal for a Council Regulation on the Community Patent, COM (2000) 412; Commission Working Document on the Planned Community Patent Jurisdiction of 30 August 2002, COM (2002) 480 final.

[33] The recent EC Directives on the legal protection of biotechnological inventions of 1998 and on the enforcement of intellectual property rights of 2004 should be mentioned. For a complete collection *see* SCHADE, Patent-Tabelle, 2 (9th ed. 2005).

[34] As the other regional agreements are exclusively of limited regional importance, no closer look will be taken at them. These are, for example, the Eurasian Patent Convention of 1994, the Agreement on the Creation of the African Regional Industrial Property Organization (ARIPO) of 1976, the Agreement Relating to the Creation of an African Intellectual Property Organization (OAPI) of 1979 and the common regime on industrial property protection of 1999 under the Cartagena Agreement, *cf.* SCHADE, *supra* note 33, at 19-32.

[35] At least the London Agreement, dated 17 October 2000, on the application of Article 65 EPC entered into force on 1 May 2008, *see* 2008 OJ EPO 123, and at 267.

4.2 The existing international agreements

International cooperation began as early as at the end of the 19th century. The foundation was laid by the Paris Convention of 1883. The two pillars of the Paris Convention, the national treatment for nationals of countries of the Union under Articles 2 and 3 and the right of priority under Article 4, are still of great importance in practice today and were also integrated into the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).[36] The establishment of the World Trade Organization, incorporating the TRIPS Agreement, combined international trade policy and intellectual property within the one framework. WTO membership now stands at 151 countries.[37]

The Patent Cooperation Treaty (PCT) of 1970[38], with 138 contracting states, constitutes the applicable international standard for international patent applications. The PCT has the advantage that all countries, also the developing countries, may participate and obtain search reports, which otherwise would not be accessible to them. The PCT is a success story of international cooperation in the patent grant procedure. It took 18 years from the beginning of the PCT operations in 1978 to reach 250,000 total applications, but only four years to double that figure (to 500,000), and another four years to double it again (to 1,000,000). The number of applications under the PCT in 2007 reached approximately 156,100, representing an increase of 4.7 % over 2006[39].

Another advantage of the international patent application is that the patent grant procedure cannot be conducted before the national patent offices or the European Patent Office before the expiration of 30 months from the priority date (Art. 23, 22 (1) PCT) without the express request of the applicant. In comparison with the priority of 12 months under Art. 4 of the Paris Convention, the applicant essentially has more time to decide whether or not he intends to seek protection in the chosen contracting states; that means he has more time to decide whether and in which countries he plans to make the investment of time and financial resources needed[40] to obtain protection. Although in the past few years various provisions have been introduced to reduce the burden on the large patent offices[41], these offices have expressed criticism of these provisions, particularly the use of PCT fees received by the International Bureau of the World Intellectual Property Organization (WIPO)[42]. Furthermore, it takes a long time until a national office decides on the grant or rejection of an IP right, and decisions may differ depending on the country. This will

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[36] 2008 OJ EPO 262.

[37] *See supra* note 12.

[38] 2008 OJ EPO 252. Industrial Property Laws and Treaties 3/2002, text 2-006; 2002 Blatt für Patent-, Muster- und Zeichenwesen (PMZ) 216.

[39] *Cf.* WIPO unprecedented Number of International Patent Filings in 2007, www.wipo.int/pressroom/en (as of Febrary 2008).

[40] *Cf.* WIPO document A/37/6 of August 19, 2002, WIPO Patent Agenda: Options for Development of the International Patent System, 'VI. The PCT as a Vehicle', Annex I, at 23-28.

[41] *Cf.* ULLMANN, in:BENKARD, Patentgesetz/Gebrauchsmustergesetz, PatG Internationaler Teil, marginal note 81 (10th ed. 2006).

[42] Primarily by US and Japanese officials.

compromise legal certainty and investment security. Frequently, another 30 months of the national phase can be added to the 30-month international phase[43]. In some cases, this long time period provides an opportunity for imitators to take advantage of the publication of the application after 18 months to not only make use of the subject-matter of the application but to themselves file an application.[44]

5. Strategies of the Large Patent Offices to Reduce Workload through International Cooperation

Modernisation, rationalisation and recruitment schemes of the large national patent offices and the international agreements – for example, the Paris Convention, PCT, TRIPS and EPC as international cooperation mechanisms and the ongoing cooperation of national and international institutions in the field of intellectual property – have not been sufficient to avoid duplication of work at the offices. Likewise new international efforts, *e.g.*, the harmonisation of substantive patent law, have not (yet) led to success. For this reason, the big offices, such as the USPTO, the JPO and the EPO, have long since decided to work together permanently and to jointly look for new ways to set standards and to mutually benefit from the work results of the others.[45] On the other hand, most of the national offices in Europe are seeking means and ways to maintain their national infrastructure for inventors and (small and medium) industrial enterprises and their know-how in the field of intellectual property, at the same time as direct patent applications are falling. This leads to new cooperation strategies for which not even rudimentary multilateral treaties under international law can be found. Rather, the prevalent goal is to work together with those who have the same interests and problems in a practical, pragmatic way while observing only the general principles (of the Paris Convention or TRIPS).

5.1 Strategic Cooperation between the European Patent Office and the Member States of the European Patent Organisation

Thirty years of the European Patent Organisation have essentially changed the infrastructure of technical IP rights in Europe. European patents can be valid in up to 34 designated states. In 2006, with 135,183 (direct and PCT regional) applications (in 2007 141,297), the European Patent Office (EPO) indeed received far

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[43] *Cf. supra* note 8.

[44] In his lecture on current patent law developments in China, given at the seminar on patent law in Japan and China, Munich, March 28, 2006, Michael Kock stated that foreign patents have been copied and the descriptions used to file utility model or design applications (which require only formal examination). By means of the fast grant, the applicant obtains a legal title, in most cases, before the foreign patent is granted in China (3 to 5 years). Seminar papers of the Patentanwaltskammer, at 135.

[45] These ideas were already suggested by WIPO in 2002, *cf.* document A/37/6, Annex I, 'III. Harmonization: Purpose and Limitations', at 9-13, *e.g.* para. 49, 'This could take the form of a simple exchange of search reports, a recognition of search reports by other offices, or even a unilateral recognition of examination results in other offices'.

fewer applications than the USPTO and the JPO with more than 400,000 each; but the operation of the EPO has had a considerable impact on small national patent offices in Europe. Only few offices still have enough resources, staff and skills to examine patent applications; among these are the German Patent and Trade Mark Office (DPMA), the UK Intellectual Property Office (UKIPO), Scandinavian offices (*e.g.*, in Sweden and Finland), as well as the Austrian and Spanish patent offices. Besides the EPO, only the DPMA has developed a series of corresponding information systems and databases. The other offices largely use the systems of the EPO.[46]

Since the national delegations in the Administrative Council of the EPO almost exclusively consist of members of national patent offices, the role of the national patent offices in relation to the EPO is a permanent issue. Its scope is wide, ranging from an almost exclusive representation model in favour of the EPO to the apparent attempt of some member states to get a larger slice of the cake and to pursue re-decentralisation in the national interest.[47]

In 2005, the Administrative Council agreed to hold a regular discussion on closer cooperation between the EPO and the national offices.[48] However, it is not intended to cancel the Protocol on Centralisation which has to a large extent become outdated, but to actually replace it by a European patent network. This network is based on four pillars, the most important of which is referred to as *Utilisation*. It consists of the *Utilisation Pilot Project (UPP)* and the *European Quality System (EQS*), for which two working groups were formed by the Administrative Council. The DPMA takes part in both working groups.

The UPP is meant to explore whether work done by national patent offices, particularly the prior art searches, can be utilised for subsequent filings with the EPO to avoid duplication of work. The pilot project was carried out during the year 2007 involving the analysis of more than 10,000 applications from Austria, Denmark, Germany and the United Kingdom. The EQS is the attempt to establish a minimum quality standard for granted patents in Europe. In this context, quality assurance of processes is a minor problem. The quality assurance of the examination as to substance as such (product quality) will certainly lead to controversial discussions.

The Supervisory Board of the Utilisation Pilot Project reported to the Administrative Council of the EPO in a Status Report during December 2007.[49] The major

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[46] Cooperation policy within the European Patent Network is described in the documents CA/146/06 rev. 2 and CA/185/06. A list of the support of national patent administration systems (EPTOS) is available in document CA 37/04, replaced by CA 142/06 with effect from January 1, 2007.

[47] Document CA/147/02, *Better exploitation of synergies within the European patent system*. For details *see* ULLRICH, National, European and Community Patent: Time for Reconsideration, in Geistiges Eigentum und Gemeinfreiheit, at 85 *et seq.* (2007).

[48] Document CA/128/05 presents proposals of the President on the introduction of a European Quality System, the utilisation of search results of National Patent Offices (NPOs) by the EPO, and the feasibility of outsourcing of work to NPOs.

[49] Document CA/185/07.

problem the UPP is facing is the low level of uptake by the applicants.[50] In an initial analysis a number of reasons for this problem were mentioned, *e.g.*, that applicants dislike the concept of utilisation and prefer two independently assessed searches.[51] The Administrative Council therefore approved the proposed course of action to continue the project and broaden the scope of the project by sending copies of national search and examination reports directly from the national offices to the EPO. The next status report will be submitted to the June 2008 meeting of the Administrative Council.[52]

5.2 The Strategic Cooperation of the World's Major Patent Offices

What other opportunities are there for strategic cooperation between patent offices such as the USPTO (US), JPO (Japan), EPO, SIPO (PR China), DPMA (Germany), UKIPO (United Kingdom) and KIPO (Republic of Korea)?

As already mentioned above[53] the big patent offices have exchanged views for many years in an effort to benefit from each other's practical experience. The DPMA, for example, has a close working relationship with the EPO and maintains contacts with the UKIPO, SIPO, JPO, KIPO, the Office of the Controller General of Patents, Designs and Trade Mark (CGPDTM) of India and the National Institute of Industrial Property (INPI) of Brazil and other IP offices, mostly based on memoranda of understanding. The almost 30-year cooperation with the SIPO and its predecessor institution has been exemplary. It has significantly shaped the Chinese patent system. The exchange of examiners plays an important role in international cooperation with all partner organisations. As an additional example, the exchange between the DPMA and the JPO should be mentioned, which also resulted in modifications of the practice of granting IP rights at the two offices.

The urgent need of the large patent offices to cope with the flood of patent applications and to stop the enormous workload from increasing even further has moved the issue of avoiding duplication of work to the center of attention. Just as for the PCT and UPP, the starting point of consideration is the fact that every office has to conduct a worldwide prior art search.[54] This means that the office of second filing

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[50] The project had been set a target to receive 1,500 applications by December 31, 2007. The number of UPP applications received at the EPO was only 230 for the period April 1 to March 4, 2008.

[51] Document CA 185/07, at 4, reason 4. This reason is confirmed by the comments the DPMA received from the applicants. Out of a total number of 91 comments received until November 2007, 78 stated that NPO/EPO examination should be kept strictly independent ('4 eyes principle').

[52] Document CA 185/07, at 6.

[53] *Supra* note 27.

[54] 'This means that many applications arriving at the EPO have already been looked at by another patent office. In 2005 the search work before the EPO included 12% searches based on first filings (EP/PCT) and 18% search work executed for the ex-IIB states. 45% of all searches for first filings made in Europe are performed by the DPMA, 10% by the UKIPO, and 15% by all the other NPOs.' (*see* Document CA/144/07, at 10).

can use the search work of the office of first filing[55]. The JPO has developed a concept, the so-called *Patent Prosecution Highway (PPH),* that is based on this insight. According to the JPO, the main advantage of the PPH is the supposedly significantly accelerated examination by the office of second filing. The JPO has announced that the procedure under the PPH would take only three months.[56]

The JPO's basic concept for the Patent Prosecution Highway is as follows:[57]

Where the office of first filing (OFF) has determined that one or more claims of a patent application are patentable, or are contained in a patent to be granted, the office of second filing (OSF) ensures that the applicant will be entitled to the benefit of an accelerated examination of the corresponding application.

Pilot projects along these lines with the USPTO, KIPO and UKIPO started in June 2006, April 2007 and July 2007, respectively. In March 2008, the DPMA started a project with the JPO to test this system in the international area. In June 2007, the EPO, too, declared that it would enter into negotiations with the JPO.[58]

The basic idea to gain synergies by this type of international cooperation is sensible in principle. However, it would be naïve to expect rapid success, because there is still no harmonised international patent law[59] and clear differences exist in the grant procedures. Just to point out an example: four to six priorities are usually claimed from an initial Japanese application, which means that the subject-matter of follow-on inventions clearly differs from the content of the first filing. In addition, search results frequently become available very late – JPO 26 months, USPTO 25.3 months[60] – so that the applicant of a subsequent application will typically not yet have received any communication on the relevant prior art from the office of first filing and is consequently unable to assess the prospect of success. Finally, the different quality of search and examination of individual offices gets in the way of an easy utilisation of the previous work. This becomes clear when looking at the widely differing grant rates, ranging from under 50% to more than 70%.[61]

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[55] Many patent acts provide that the patent office may invite the applicant to indicate the states in which he has made applications for national patents for the whole or part of the invention to which the subsequent application relates. If the applicant fails to reply to such an invitation, the patent application is deemed to be withdrawn, *e.g.* Article 124 EPC 2000.

[56] A detailed description is contained in Patent Abstracts of Japan News No. 40/2006, at 2 and 3.

[57] *Cf.* the Joint Statement of Intent between the Japan Patent Office and the German Patent and Trade Mark Office to cooperate in the field of patent prosecution, signed in Tokyo, on October 19, 2007.

[58] Document CA/ 87/07. The 25th Memorandum of Understanding on Trilateral Cooperation in the Field of Industrial Property, signed on 9 November 2007, however does not mention any PPH cooperation between the EPO and the JPO, document CA/201/07, at 3 of the Memorandum. *See* also document CA/168/07, p. 21.

[59] *Cf.* chapter 2: 'Approaches to worldwide harmonisation of substantive patent law.'

[60] *Cf. supra* note 8.

[61] According to the Annual Report 2006 of the JPO, at 10, the rate of decisions to grant a patent was 49.1 % in 2005. According to the Final Report on the Benchmarking Project (Productivity of the EPO, UKIPO & DPMA, June 29, 2007, at 41), in 2006 the ratio of decisions to grant over applications in examination stage was 77 % for the EPO, 75 % for the UKIPO and 54 % for the DPMA. In a press release of 15 November 2007 the USPTO stated for the Fiscal Year 2007: 'In 2000, a record high of 72 percent of all patent applications became patents. In contrast 51 percent of patent applications were granted in FY 2007.' It remains to be seen whether or not this is a lasting result.

The results of the PPH pilot projects have not yet been published. By May 2007 the JPO had received 120 requests and the USPTO had received 72 requests. The EPO had not even started a comparable programme by the end of 2007.[62]

5.3 Results of the pilot programmes

The preliminary results of the pilots under the UPP and PPH, which involved considerable effort, do not seem to live up to the high expectations they initially generated. However, it is necessary to make a precise analysis explaining why so few applicants attach importance to an accelerated processing of their priority application at the office of second filing. We know from practice that applicants with a domicile or establishment in Germany, for example, being active in the European or international market place, usually file their first application at the DPMA and subsequent applications via the PCT or at the EPO within the priority year[63]. In 2006, almost two thirds of the eventual 145,300 international applications[64] came from the three countries of USA, Japan and Germany. That means that the applicants could frequently provide, at their own initiative, the examination results of the offices of first filing to the office of second filing, if they deemed an accelerated examination (and grant) of their second application important. Could it be possible that, provided the applicants get a well-examined first application, the accelerated processing of the subsequent application is not always important to them?

6. Outlook

Certainly, mastering the workload is an important task for patent offices; and countries, as well as the international community of states, have an interest in securing legal certainty and investment security. Both needs may be met only if the public and business competitors receive information on the availability and extent of industrial property rights for which applications have been made within a reasonable period of time.[65] However, it is remarkable that considerations other than mastering the workload, namely those concerned with the benefits of patent protection

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[62] Document CA 107/07, at 7. The 25th Memorandum of Understanding on Trilateral Cooperation in the Field of Industrial Property, signed in Alexandria, on November 9, 2007 just states that 'The JPO and the USPTO have been operating a pilot program since July 2006 and confirm plans to fully implement this program on a permanent basis in January 2008. The EPO and the USPTO agreed to conduct a bilateral, PPH comparable program.' Document CA/201/07, at 3 and 4.

[63] In case of subsequent applications filed with the EPO, applicants have furnished more than 10,500 p.a. requests for extension of the time limit with the DPMA, regarding the processing of their first applications, to ensure that they can draw back to the applications still pending at the DPMA.

[64] US 34.1 %, JP 18.5 %, DE 11.7 %, PCT Newsletter No. 02/2007.

[65] The Intergovernmental conference of the member states of the European Patent Organisation on the reform of the patent system in Europe, Paris, 24 and 25 June 1999, under 1-B- Shortening the grant procedure 'invited the Organisation (EPO) to undertake every possible effort to shorten procedures, so as to bring the average time it takes to grant a European patent down to three years, whilst maintaining the level of quality' (1999 OJ EPO 545).

for the world community or individuals, have receded into the background. This situation raises the further question of whether the international community of states should simply accept the flood of patent applications or whether the patent system needs to be adjusted internationally to deal with the problems.[66] Creating synergies is not only necessary for the grant of IP rights, but also, at an earlier stage, to avoid 'trivial applications'.[67]

Irrespective of the theory applied in support of patents (acknowledgement, incentive, award, contract, etc.),[68] the generation of 'patent thickets' is not among them and the right conferred by a patent is certainly not meant to accommodate 'patent trolls.'[69] If it is correct that the enormous growth rates of patent applications do not correlate with corresponding R&D expenses but are, instead, based on the strategies of companies[70], should the theories be adapted to reality or should an attempt be made to make reality conform to the theories?

A theory that does away with a right for the protection of a human achievement (i.e., a technological invention) by an economic monopoly, simply on account of anti-trust law, is hardly conceivable. As Joseph Straus rightly stated in one of his latest essays:

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[66] *Cf. supra* notes 5 and 15. Fees have a considerable impact on the number of applications and patent claims, *cf.* document CA/4/08 The role of Fees in the European Patent Systems. Trade mark law in Germany has always prescribed the exclusion of legal rights due to non-use, pursuant to Sec. 25, 26 Trade Mark Law and, since 2004, bad faith as an absolute ground for refusal Sec. 8 (2) No. 10 Trade Mark Law. With these measures the legislator aimed at preventing such unjustified monopolies at an early stage to discourage any blackmail scheme; *cf.* STRÖBELE/HACKER, Markengesetz, § 8, marginal note 425 (8th ed. 2006).

[67] In this context, the European Patent Office published an interesting study, showing that, from 2002 to 2006, domestic applications in proportion to the GDP decreased by more than one third in Europe, by only about 6% in the USA and by about 17% in Japan, *cf.* document CA/131/07, pp. 18-19. This leads to the conclusion that the hurdles for a patent grant in Europe were being raised, at least in the past few years, structurally as well as in the individual case.

[68] *Cf.* ULLMANN, in: BENKARD, *supra* note 41, at § 1 PatG marginal note 1b; SCHULTE, Patentgesetz mit EPÜ, § 1 PatG/Art. 52 EPC, marginal note 10 (7th ed. 2005): a) acknowledgement of an outstanding achievement in the area of technology, b) incentive for further achievement, c) inventor deserves an appropriate award for his contribution to technological progress and to the public's store of technical knowledge.

[69] This problem has already become the subject matter of public opinion, *cf.* HANDELSBLATT, July 23, 2007, p. 5: 'Das Treiben der Trolle. Patente sollen Erfindungen schützen – stattdessen missbrauchen windige Geschäftsleute sie, um Unternehmen zu erpressen und Wettbewerb auszuschalten. Ohne eine grundlegende Reform steht das Patentsystem vor dem Kollaps.' (*The activities of trolls. Patents are intended to protect inventions – instead dubious business people misuse patents to blackmail companies and to eliminate competition. Without a fundamental reform the patent system is likely to collapse.*) A basic economic study on the relation of IP and Knowledge society is contained in CARLAW/OXLEY/WALKER, Thorns and Nuth, Beyond the Hype: Intellectual Property and the Knowledge Society/Knowledge Economy, in MCALEER/OXLEY (eds) Economic and Legal Issues in Intellectual Property, 149 *et seq*. (2007).

[70] *Cf. supra* note 5, focus study with the title: 'Erfindungen Kontra Patente', Introduction, at XIII, *cf.* also ULLRICH, *supra* note 47, at 96, 97.

What is needed is flexibility and constructive reflection instead of stubborn defence of existing by no means always ideal positions. Harmonisation should be seized as an opportunity to reconsider certain substantive law principles and to filter best practices from the various systems. [71]

[71] STRAUS/KLUNKER, *supra* note 17, at 936.

Patents in Europe and their Court – Is there Light at the End of the Tunnel?

Michael Schneider

1. Introduction

With its April 2007 Communication to the European Parliament and the Council entitled *'Enhancing the Patent System in Europe'*[1] the European Commission kicked off yet another round of discussions, negotiations and proposals in the quest to provide Europe with a patent system suitable to the needs of the Internal Market and competitive in the globalized economy of the 21st century. Building on the long list of earlier drafts and agreements – starting with the first tentative steps towards a Community Patent Convention in the 1950s[2] and ending with the Common Political Approach regarding the proposed Community Patent Regulation[3] and the Draft European Patent Litigation Agreement ('EPLA')[4] of 2003 – which despite much initial enthusiasm at the end all failed to garner enough support to enter into force the Commission has set out once more to provide Europe not only with a unitary patent right, but also with the court and procedure to ensure its effective and uniform enforcement.

What seems more important still is that there are now for the first time concrete proposals to bring the upcoming Community Patent Jurisdiction and the litigation system of the European Patent under one roof in order to break the deadlock between the Community and those Member States of the European Patent Organization that are willing to group closer together for litigation purposes only. Faced with an ever growing number of bundle patents granted on the basis of the hugely successful European Patent Convention ('EPC') the post-grant litigation of these European patents has been crying out for a reform away from the present piecemeal enforcement in national courts for years. In the form of the Draft EPLA, this strand of the reform effort has matured into the most advanced jurisdictional and procedural proposals to date.

Throughout his career Professor Joseph Straus, whose outstanding achievements in academia and practice we have the honor to commemorate with this publication, has not only greatly contributed to the development of the material law of patents and other areas of intellectual property law. He has also never lost sight of the importance of the enforcement aspect for a well-functioning and competitive

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1 Document COM (2007) 165 final of April 3, 2007.

2 *Cf.* REIMER, Europäisierung des Patentrechts 84 (1955) – 'Plan Longchambon'.

3 Document 6843/1/03 Rev. 1 of March 3, 2003.

4 Available at < http://www.epo.org/patents/law/legislative-initiatives/epla.html > (as of April 2008).

European patent system.[5] The following paragraphs outline the background and state of discussions and the prospects for success of the current reform proposals.

2. The European Patent System

Looking back at over more than fifty years of cooperation in the field of European patent law one certainly can not fail to acknowledge that enormous progress has been made. With a harmonized body of substantial patent law under the EPC and accompanying Community legislation[6] and with a centralized prosecution procedure before the European Patent Office ('EPO') which has resulted in over 850,000 granted patents since its entry into force in 1977, Europe finds itself in a strong position in the global race for innovation. The successful overhaul of the European Patent Convention with the EPC 2000[7] and the conclusion of the London Agreement[8] which will significantly reduce the costs incurred for the translation of granted European Patents are further proof of the system's flexibility and of its responsiveness to the needs of the users in an Organization which has grown from the original 7 to 34 Member States.

2.1 The Failed Community Patent Conventions

However, not even this unparalleled success story can mask the fact that – unlike for trademarks and designs – for more than three decades now the European Community has failed to provide inventors and industry with a Community Patent offering unitary protection and enforcement of their rights throughout the Internal Market.[9] In fact, the European Patent Convention and in particular its limitation to a common prosecution system for European Patents which upon grant become subject to the various legal and jurisdictional regimes of the designated Member States owe their very existence to the Community's inability to complete the larger picture and arrive at a consensus on a unitary post-grant regime when the European patent system was negotiated in the early 1970s.

For all its subsequent success, it must be kept in mind that the conclusion of the EPC in 1973 was only meant to be the first step. Already the second one, which was supposed to bring the patent system into line with the requirements of the Internal

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[5] *Cf.* STRAUS, The Present State of the Patent System in the European Union as Compared with the Situation in the United States of America and Japan, Luxemburg 1997; Der Beitrag Deutschlands zur Entwicklung des internationalen gewerblichen Rechtsschutzes, 2003 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 805, 810; Patent Litigation in Europe – A Glimmer of Hope? Present Status and Future Perspectives, 2 Wash.U.J.L&Pol'y 403 (2000).

[6] Such as the Supplemental Protection Certificate for Medicinal Products (Regulation (EEC) 1768/92, OJ EC L 182 of July 2, 1992) and the Directive on the Protection of Biotechnological Inventions (Directive 98/44/EC, OJ EC L 213 of July 30, 1998).

[7] 2007 OJ EPO Special Edition No. 1, 1; *cf.* NACK/PHÉLIP, Bericht űber die Diplomatische Konferenz zur Revision des Europäischen Patentűbereinkommens Műnchen 20.-29. November 2000, 2001 Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil (GRUR Int.) 322.

[8] Agreement on the Application of Art. 65 EPC of October 17, 2000, 2001 OJ EPO 550.

[9] *Cf.* SCHMIDT-SZALEWSKI, Europe, Patents and Dinosaurs, 38 IIC 757 (2007).

Market and to immediately follow on the Community's side, was missed. And so ever since the failure of the first Community Patent Convention of 1975, we have seen the Community Patent project stumbling behind the changing political landscape throughout the various enlargements of both the European Community and the European Patent Organization and, more importantly, behind the development of the Community legal order.

From today's perspective it probably appears fair to say that no one would consider entrusting the patent system of the Community's Internal Market to a mixture of intergovernmental agreements, a central authority situated outside the Community legal order and to the diverging practices of the national patent authorities of the Member States,[10] let alone to propose a Community Patent which is not supposed to replace this system, but to complement it and to leave Europe with three different and competing patent systems (national, intergovernmental and Community). And yet this is basically where we find ourselves today.

The prosecution and post-grant phases were originally relegated to two separate intergovernmental agreements in order to allow for the widest possible participation among European countries in the centralized and harmonized prosecution system, irrespective of their position within or outside the European Community. Intellectual Property matters were not yet regarded as within the legislative competences of the Community. This made the intergovernmental approach the natural and mandatory choice for progress in this vital field of economic cooperation in Europe both among Member States of the Community and *vis-à-vis* third countries. Remaining outside the Community's legal order also allowed the patent project as a whole the measure of flexibility needed to spearhead European integration even beyond the Community's boundaries. With only nine countries within the Community in 1973, separate agreements for the prosecution and post-grant regimes and the bundle approach were the only possible ways to accommodate also those patent active countries that were not yet in a position to join the Community full scale or deliberately chose to stay outside, as Switzerland, for example, has done to this day. The fact is also worth mentioning that despite the quite diverging economic situations and political interests, the original 16 signatory countries of the EPC managed to limit the number of official prosecution languages to just three. This certainly remains strong proof of the political will for integration of the time and it contrasts starkly with the later development and today's situation.

The EPC provides for an efficient centralized judicial review before the independent EPO Boards of Appeal which are staffed by legally and technically qualified members sitting in a multinational composition chosen according to the technical field of the patent before them and conducting the procedure on the basis of a common set of rules of procedure in either one of the three official languages of the EPO. For all but in name, the Boards of Appeal function as the Appeals Court of the EPO and have contributed greatly to the harmonization of European patent law.

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[10] *Cf.* ARTELSMAIR, Die Internationalisierung des Patentsystems in Europa im Spannungsfeld von Globalisierung, Regionalisierung und nationalen Interessen 220 (2003).

None of this has been possible on the post-grant side. In order to bring about the unitary patent right needed to align the territorial scope of patent protection with the Internal Market of the European Community, the bundle of national patents emerging from the EPO needed to be made into one patent for the Member States of the Community and to be made subject to a unitary enforcement regime ensuring the uniform application of the harmonized patent law in infringement and invalidity procedures. But while all of these are commonplace requirements which generally everyone has agreed on since the beginning the devil, as so often, has been in the details.

The first Community Patent Convention of 1975 provided for a separation of infringement and invalidity procedures – infringement going to the national courts of the Member States and invalidity going to special divisions within the EPO and ultimately to the European Court of Justice ('ECJ') – and was unacceptable for the majority of Member States, in particular the United Kingdom, for that very reason. The modified Community Patent Convention of 1985 and its Protocol on Litigation of 1989 tried to remedy this point by allowing for a combined infringement and invalidity procedure before a limited number of designated national courts who were to be given Community wide jurisdiction on both aspects of litigation. The uniform application of the harmonized body of patent law between the national courts and its conformity with the Community legal order were to be ensured by a newly established Common Patent Appeal Court ('COPAC') who as an independent international organization of the Member States was to occupy a position between the national jurisdictions and the jurisdiction of the ECJ. The complexity of this structure and the time and cost effect it would have had on patent litigation in the Community together with the comprehensive and costly translation requirement for Community Patents agreed upon in the course of renegotiations,[11] however, made it plainly unattractive for the users.

2.2 The Status Quo of Patent Litigation in Europe

Both versions of the Community Patent Convention thus failed. In the meantime the EPC prosecution system established itself as a success, granting growing numbers of European Patents which on average are validated in 5 to 6 EPC Member States. Enforcement and invalidation of these patents had and has to go through the national jurisdictions of the individual Member States. More often than not this is necessary in parallel in more than one of these jurisdictions, in particular if economically important patents and Europe-wide infringements are concerned. Litigants are thus faced with different courts, some of which are technically qualified while some are not, different competences and procedural laws, which either allow to directly challenge the patent in suit or relegate these questions to different courts (as

[11] Art. 29 and 30 Protocol on Litigation. In connection with the Community Patent negotiations the same requirement was then imposed on the European Patent, though, by Member States making use of the possibility offered by Article 65 EPC to require a full translation for the validation of the European Patent in their respective territories – a very costly development that has only recently been reversed by the London Agreement (cf. supra note 8).

for example in Germany), different remedies of infringement, in particular different methods and procedures to calculate and collect damages, and certainly a steep increase in time and costs incurred for having to litigate in various jurisdictions what at the core of the matter is one dispute over one patent and one infringement.

Most importantly, though, despite lots of efforts on the side of judges[12] and practitioners, the current system of national enforcement of European patents over the last two decades has not provided a uniform interpretation of the harmonized law.[13] As everyone who has been involved in this type of multi-jurisdictional litigation probably has experienced more than once, there still is a considerable measure of unpredictability and thus legal uncertainty when the different parts of one and the same European patent are brought before 'their' respective court. The keyword here is 'Epilady'.[14] This situation is not only deeply unsatisfying for the right holders who see their patents upheld in one Member State and revoked in another or an injunction granted in one and their action dismissed in another, it also runs contrary to the harmonized law: Given the same factual basis (state of the art, patent claims, and infringing embodiment) the EPC provisions on the grounds for invalidity (Art. 138 EPC) and on the scope of protection (Art. 69 EPC and Protocol on Interpretation) only allow for one correct interpretation.[15]

Failing any progress on the legislative side patent owners and practitioners have learned to make the most out of the fragmented enforcement scheme. Forum Shopping and so-called 'Torpedo Litigation' strategies employed by both patent owners and infringers have often been frowned upon, but at the end of the day are the tools that the trade is provided with under the EPC and the general rules of jurisdiction under the Regulation 44/2001/EC ('Brussels Regulation') and its predecessor, the Brussels Convention of 1968. Until the Commission and/or the EPC Member States get their act together there is no common jurisdiction for patent infringement and invalidity matters. Not even in cases directed against Community Institutions such as the European Central Bank – this was recently tested in a case concerning allegedly infringing Euro banknotes which the patent owner unsuccessfully tried to bring before the Court of First Instance of the ECJ.[16]

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[12] Most notably through the bi-annual Symposia of the European Patent Judges; *cf.* KOLLE/STAUDER, Die Symposia europäischer Patentrichter, 2001 GRUR 958.

[13] *Cf.* EPO, Assessment of the impact of the European patent litigation agreement (EPLA) on litigation of European Patents, available at <www.epo.org/patents/law/legislative-initiatives/epla/assessment.html> (as of April 2008).

[14] *Cf.* PAGENBERG, The Scope of Art. 69 European Patent Convention: Should Sub-Combinations be Protected? – A Comparitive Analysis on the Basis of French and German Law, 24 IIC 314 (1993); FABRY, Die Harmonisierung der europäischen Patentrechtsprechung – Notwendiges Übel – oder üble Notwendigkeit?, 2008 GRUR 7, 9.

[15] *Cf.* TILMANN, Neue Überlegungen im Patentrecht, 2006 GRUR 824, 826; ID., The Harmonisation of Invalidity and Scope of Protection Practice of the National Courts of EPC Member States, 37 IIC 62 (2006).

[16] *Cf.* ECJ, Case T-295/05 and LORD JUSTICE JACOB in European Central Bank v Document Security Systems Inc., [2008] EWCA Civ. 192: *'Imaginatively but overoptimistically it [DSS] tried to bring central proceedings before the Court of First Instance of the EU. On 5th September 2007, that Court held, not surprisingly, it had no jurisdiction to hear patent infringement proceedings even against an EU institution, …'.*

Surveys conducted in the framework of the EPO's Working Party on Litigation and the Commission's consultation process leading up to its April 2007 Communication[17] show that there are between 1500 and 2000 patent infringement and invalidity cases a year raised before the first instance tribunals of the Member States. About 60 to 70 percent of these concern European Patents. About 90 percent of this litigation takes place before the courts of just four Member States, *i.e.* Germany, France, the UK and the Netherlands, in that order and with Germany alone accounting for an absolute majority of all cases. The costs of litigation in these four jurisdictions have been estimated at between € 50,000 in Germany and € 150,000 to € 1.5 Million in the United Kingdom for a first instance litigation concerning both infringement and invalidity of one European patent.[18] The financial interest to choose the right jurisdiction becomes immediately apparent from these figures.

The German patent litigation procedure in general is regarded as being reasonably efficient and delivering sound decisions and consistent jurisprudence. The UK procedure on the other end of the price scale offers the possibility to get a comprehensive decision on validity and infringement from the same court in one go and is sought after in particular in economically important and pressing cases. With the 'saisie contrefaçon' the French procedure allows for a very effective method for the gathering of evidence which under certain conditions can even be introduced into infringement procedures in other jurisdictions. For a number of years in the late 1990s and early 2000s, the Dutch jurisdiction established itself very positively in the European patent litigation landscape with the so-called cross-border injunctions developed by the courts of The Hague. These injunctions seemed like a promising practical way out of the fragmented enforcement of European Patents and drew much attention from practitioners, litigants and academia.[19] Whether or not the Dutch jurisdiction will lose importance following the ECJ's 2006 decisions in the *GAT v. Luk*[20] and the *Roche v. Primus*[21] cases, which effectively put an end to the cross-border approach,[22] remains to be seen.[23]

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[17] *Cf. supra* note 2.

[18] *Cf.* EPO, *supra* note 13, Annex 1, and SCHNEIDER, Die Patentgerichtsbarkeit in Europa – Status Quo und Reform 126, 182 (2005).

[19] *Cf.* among others BRINKHOF, Could the President of the District Court of The Hague Take Measures Concerning the Infringement of Foreign Patents?, 1994 E.I.P.R. 360; BRINKHOF/SCHUTJENS, Revocation of European Patents – A Study of the Statutory Provisions and Legal Practice in the Netherlands and Germany, 27 IIC 1 (1996); KIENINGER, Internationale Zuständigkeit bei der Verletzung ausländischer Immaterialgüterrechte: Common Law auf dem Prüfstand des EuGVÜ, 1998 GRUR 280; VÉRON, Les ‚euro-injunctions' devant las justice française, 1995 RDPI 13; GRABINSKI, Zur Bedeutung des Europäischen Gerichtsstands- und Vollstreckungsübereinkommens (Brüsseler Übereinkommens) und des Lugano-Übereinkommens in Rechtsstreitigkeiten über Patentverletzungen, 2001 GRUR Int. 199.

[20] ECJ, Case C-4/03, 2006 GRUR Int. 839.

[21] ECJ, Case C-539/03, 2006 GRUR Int. 573.

[22] *Cf.* KUR, A Farewell to Cross-Border Injunctions? The ECJ Decisions *GAT v. LuK* and *Roche Nederland v. Primus and Goldberg*, 37 IIC 844 (2006) and RŐßLER, The Court of Jurisdiction for Joint Parties in International Patent Disputes, 37 IIC 380 (2006).

[23] *Cf.* FELDGES, Die Durchsetzung von Patenten in europäischen Streitigkeiten, Festschrift für Tilman Schilling 111, 113 (2007).

3. The Community Patent Court and the European Patent Litigation Agreement

On the legislative side, concrete efforts to break the stalemate over the Community Patent were only undertaken again towards the end of the 1990s with the consultation process leading up to the Commission's proposal of a Community Patent Regulation of 2000 and the European Patent Organization's 1999 parallel decision to mandate a Working Party on Litigation to explore and draft a possible optional litigation protocol to the EPC.[24] The latter project was to allow a sub-group of those EPO Member States who were interested in setting up a common patent jurisdiction the necessary measure of flexibility to once more spearhead a development which – as was to be hoped – would eventually drag the others along. In other words, the EPLA project stayed in line with the intergovernmental approach the EPC had successfully been built upon two and a half decades earlier outside the Community structure.

3.1 The Development of the Community Legal Order

The Community legal order had made substantial progress in the meantime, however. Having learned its lesson from the failed intergovernmental Community Patent Convention the Community had finally asserted its legislative competences in the field of Intellectual Property. On the basis of the complementary competences of Art. 308 EC Treaty, the unitary Community Trademark and the Community Design were implemented as well as the Supplemental Protection Certificate Regulation and Biotech Directive in the patents field. Also, other areas of law relevant for the intended EPC patent litigation system have in the meantime been integrated into the Community legal order. The Brussels Convention governing the jurisdiction of Member States' courts for civil litigation, and thus in particular patent infringement and invalidity litigation, and the enforcement of these court's decisions was already set to be transferred to the Regulation 44/2201/EC ('Brussels Regulation') at the time work on the EPLA project was taken up. Likewise, work was about to begin on the IP Enforcement Directive 44/2004/EC harmonizing the procedure and remedies available in IP litigation before the Member States' courts.[25] All of these are, of course, important measures and steps into the direction of a more harmonized Internal Market. Unfortunately, though, their adoption has also put an increasingly dark cloud over the EPLA negotiations and drafts. Under the ECJ's ERTA[26] and TRIPS[27] jurisprudence, the Member States lose their competence to conclude parallel agreements among themselves and with third countries in those areas of law which have been harmonized by Community legislation. When adopting the Brussels Regulation – and again with the Enforcement Directive – the Member States apparently did

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[24] 1999 OJ EPO 549.

[25] *Cf.* EISENKOLB, Die Enforcement-Richtlinie und ihre Wirkung – Ist die Enforcement-Richtlinie mit Ablauf der Umsetzungsfrist unmittelbar wirksam?, 2007 GRUR 387.

[26] ECJ, Case C-22/70, [1971] ECR 263.

[27] ECJ, Opinion 1/94, [1994] ECR I-5267.

not realize that by agreeing on this harmonization in the Council in Brussels with one hand they were at the same time pulling the rug from underneath the intergovernmental project they had just mandated in Paris in the framework of the EPO with the other hand.

3.2 The European Patent Court of the Draft European Patent Litigation Agreement

Irrespective of this it has in fact been the EPLA project that has seen by far the biggest progress as far as material questions of structure, composition, jurisdiction and procedure of the intended common patent litigation system are concerned. From the discussions between Member States, industry and experts within the Working Party on Litigation emerged the Draft EPLA[28] and the Draft Statute of the European Patent Court[29] which since their publication in 2003/2004 have been the subject of much attention.[30]

In brief terms, the Draft EPLA provides for a European Patent Judiciary to be set up as a separate international organization having as its main organ the European Patent Court. First instance jurisdiction of this court is supposed to be vested in one Central Division at the (yet to be determined) seat of the court and a number of Regional Divisions in the Member States ensuring the local presence, use of existing and experienced patent litigation structures and accessibility for the parties, all of which had emerged as core requirements during the consultation progress with the interested circles and the negotiations between Member States. Importantly, though, these Divisions are not competing international jurisdictions but rather organizational units of the unitary European Patent Court of First Instance which will sit in mixed panels composed of technically and legally trained judges from at least two EPLA Member States. A maximum of three Regional Divisions per Member State is allowed by the draft treaty ensuring sufficient capacity for the three or four big patent litigation jurisdictions.[31] For the Member States accessing to the EPLA, the European Patent Court is supposed to have exclusive jurisdiction for all patent infringement (actual or threatened), invalidity and related damages/compensation litigation regarding European Patents. The national courts of the Member States retain jurisdiction for interim and protective measures which need, however,

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[28] *Cf. supra*, note 4.

[29] Available at < http://www.epo.org/patents/law/legislative-initiatives/epla/latestdrafts.html > (as of April 2008).

[30] *Cf.* among others WILLEMS, Wege und Hindernisse: das Protokoll über die Regelung von Streitigkeiten in Zusammenhang mit europäischen Patenten und das Gemeinschaftspatent, 2003 OJ EPO Special Edition No. 2, 190; LUGINBUEHL, A Stone's Throw Away from a European Patent Court: The European Patetent Litigation Agreement, 2003 E.I.P.R. 256; LUGINBUEHL, Streitregelungsuebereinkommen vs. Gemeinschafspatent?, 2004 GRUR Int. 357; LANDFERMANN, Streitregelung für europäische Patente – Rűckblick und Perspektiven, 2003 OJ EPO Special Edition No. 2, 230; OSER, The European Patent Litigation Agreement – Admissibility and Future of a Dispute Resolution for Europe, 37 IIC 520 (2006); ARNULL/JACOB, European Patent Litigation: Out of the Impasse?, 2007 E.I.P.R 209;

[31] *Cf. supra* 2.2.

to be followed by an action on the merits before the European Patent Court. Those EPLA Member States who are also bound by the Regulation 44/2001/EC ('Brussels Regulation') will designate the European Patent Court as their national court within the meaning of that Regulation, thereby giving full effect to these Community provisions in the framework of the EPLA. Conformity with the Community legal order is further ensured by the designation of the European Patent Court as national court of those EPLA Member States that are also Member States of the European Union within the meaning of Art. 234 EC Treaty, thereby allowing the ECJ to give preliminary rulings on questions of Community law that arise in the procedure before the European Patent Court. Explicit precedence is given to Community law in all instances where a collision between the EPLA provisions and the Community law might occur. The language of proceedings before the Central Division is supposed to be the language in which the respective patent was prosecuted before the EPO, the language of proceedings before the Regional Divisions is either the EPO official language which is also the official language of that Member State or the EPO official language designated for that purpose by that Member State.

These Draft EPLA instruments have been very positively received, in particular from IP practitioners across Europe who consider them to be a focused and functional alternative and starting point for an integrated patent litigation system. Following their publication they have been endorsed and complemented by a detailed set of recommendations for the Rules of Procedure of the future European Patent Court in the form of the 'Second Venice Resolution' agreed upon by 26 European Patent Judges in November 2006[32] which offer every possible guarantee for an efficient resolution of patent disputes on a European level.[33]

3.3 The Impasse

Nevertheless, the last four years have proved to be another 'march through the dessert' for both the European Patent Litigation and Community Patent projects.[34] The Commission's proposal for a Community Patent Regulation as first put forward in August 2000[35] and amended by the Common Political Approach of 2003[36] proved to be unacceptable to the Member States and the users. Once again the primary stepping stones turned out to be the approach to litigation which would have provided for only one central Community Patent Court attached to the Court of First Instance of the ECJ under Art. 225, 225 a and 229 a of the EC Treaty as adopted at the 2000 Nice Conference and the extensive translation requirements which were once more levied on the proposed Community Patent. With the competence question hanging

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[32] Available at <http://www.eplaw.org/Downloads/Second%20Venice%20Resolution%20dated%204%20November%202006.pdf> (as of April 2008).

[33] *Cf.* FELDGES, *supra* note 23.

[34] *Cf.* WAAGE/LUGINBUEHL, Doter L'Europe d'un système de règlement des litiges en matière de brevets, Propriété Industrielle, April 11, 2008.

[35] Document COM (2000) 412 final of August 1, 2000.

[36] *Cf. supra* note 3.

over the EPLA project[37] and the search for a progress of the Community Patent being given priority by Member States[38] both projects effectively stalled again until the Commission picked them up again with the consultation process started in 2006 and its Communication of April 2007.

4. Which Way Forward?

By now already the better part of another decade has passed since the Community and the European Patent Organization chartered the general course of their renewed reform projects in the late 1990s. And although quite some progress has been made in aligning the jurisdictional and procedural settings of patent litigation between the original drafts, a number of core questions have still not been resolved.[39]

4.1 A Common Court for Community and European Patents

Following several rounds of consultation and extensive discussions in the various forums there now is a general agreement about the structure of the future patent judiciary (unitary but decentralized in first instance, trial of infringement and invalidity in one action, allocation of cases between the different first instance Divisions along the lines of the Brussels Regulation, central appeals court, technically and legally qualified judges in multinational composition of panels, use of existing court structures to the extent possible) and about the basic principles of procedure[40] (written preparation of cases, exclusion of late submissions, streamlined case management focusing on core issues, availability of protective and provisional measures, limited scope of appeal, etc.). The Commission has explicitly acknowledged that these elements drawn from the Draft EPLA should form the basis of the future work.

What has not yet been solved, though, is the question how the necessary link between the Community Patent and the European Patent is to be made, and more particularly how the litigation concerning European Patents can be brought under the jurisdiction of the proposed court alongside the litigation concerning the future Community Patent. The point seems to have been prudently left open in the documents currently being circulated by the Commission as basis for further discussion

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[37] Backed inter alia by an opinion from the Legal Service of the Council from May 2001 the Commision had very early during the EPLA negotiations taken the position that the Member States had lost the competence to conclude the intended agreement. This position was confirmed by a further interim opinion from the Legal Service of the European Parliament from January 2007. Both documents remained unpublished but have found their way into the discussion; *cf.* ARNULL/JACOB, *supra* note 30.

[38] *Cf.* the Declaration of the Working Party on Litigation of November 20, 2003, available at <http://documents.epo.org/projects/babylon/eponet.nsf/0/9F8870AD4D54AE4DC125723D004AF178/$File/declaration_en.pdf> (as of April 2008).

[39] *Cf.* PAGENBERG, Another Year of Debates on Patent Jurisdiction in Europe and No End in Sight?, 38 IIC 805 (2007).

[40] No clear distinction between procedural and material provisions can be drawn, *cf.* KÖNIGER, Teilung und Ausscheidung im Patentrecht 192 (2004).

and negotiation. The future court now comes by the name of 'European Union Patent Court' and no longer strictly as 'Community Patent Court' while the exact nature of the legal instrument which is supposed to bring it about is left unspecified.[41]

These points cut right to the heart of the matter, however, since it is here where the gap between the two legal orders (Community and EPO/Intergovernmental) needs to be bridged. The parallel and unconnected litigation structures that were proposed from the Community's and the European Patent Organization's side in the early 2000s were fundamentally and rightly criticized for exactly the doubling of demands on resources and personnel caused by separate litigation structures for Community and European Patents. Consequently thought through, these drafts would have meant that Europe was to run three different patent systems with an equal number of litigation forums each having a fenced off jurisdiction – a clear and undisputable waste of resources, especially compared to the unitary patent systems of Europe's main competitors on the global innovation market, Japan and the United States, and increasingly India and China.[42]

Consensus is emerging that only one court system should be set up for litigation of both Community and European Patents. Out of these two, obviously, the hitherto national litigation of European Patents is the more urgent matter and it will remain so for the foreseeable future as the grant – and even more so the litigation – of the first Community Patent is far off on the horizon whatever will happen to this dossier on the Community's side during the next months.

4.2 How To Do It?

At present discussions are turning around 'transfer' or 'transplantation' solutions, the terminology depending on which forum – European Community or European Patent Organization – one looks at. Both terms are meant to denote a possible use of the Draft EPLA elements in the framework of a unitary litigation system. Exactly to what extent this could be possible is open for debate, however.

From the Commission's point of view, the possible 'transplantation' would be limited to the structural and procedural provisions agreed upon in the framework of the EPLA. They are supposed to form the basis for the future unitary court within the Community jurisdiction.[43] From the perspective of the EPLA, on the other hand, the double need to arrive at a functioning litigation system for European Patents in the short run and to ultimately provide for only one court for both European and Community patents could be accommodated by allowing for the creation of the European Patent Court of the Draft EPLA to be set up as a first optional step between the interested Member States with the participation of the European Union and by providing for the subsequent 'transfer' of this court to the future Community Patent litigation structure.[44]

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[41] *Cf.* Document COM (2007) 165 final (supra note 1) and Document 7728/08 of 19 March 2008.
[42] *Cf.* STRAUS/KLUNKER, Harmonisation of International Patent Law, 38 IIC 907 (2007).
[43] *Cf.* Document COM (2007) 165 final (*supra* note 1), 10.
[44] *Cf.* WAAGE/LUGINBUEHL, *supra* note 34.

The central argument in favor of the EPLA is the optional approach. This is supposed to allow the interested 'litigation' members of the European Patent Organization to move on without the need for unanimity within in the European Union which for so long and for different reasons (litigation structures, languages/translations, and distribution of workload) has obstructed all progress. But while there are certainly good arguments for the latter approach – the consensus already reached between the Member States who would be the main players of this optional solution, examples of other supranational courts of restraint circles of Member States such as the Benelux Court and the anticipated speed with which it could be put into place once the necessary political decisions are taken being the most compelling ones[45]– at the end of the day it seems doubtful that this approach can really advance the common cause.

Whether the EPLA is to be concluded as a separate and truly intergovernmental agreement supplemented by the necessary instruments to insure its subsequent 'transfer' to the Community legal order or whether its core features are to be incorporated and 'transplanted' into an integrated Community jurisdiction from the beginning the Community will have to be brought on board as a contracting party to the agreement. With its 'Open Skies' decision[46] of 2002 and its 'Lugano Convention' opinion 1/03 of February 2006[47] the ECJ has confirmed its jurisprudence regarding the restrictions on Member States' treaty making powers in harmonized areas of law once again. It has been specifically established that a 'disconnection clause' ensuring the application and precedence of Community law over the provisions of the intergovernmental agreement is not suitable to remove the obstacles to Member States' treaty making power under the ERTA jurisprudence.[48] Nothing would be gained by the EPLA pressing forward only to find the project tangled up and stalled in legal battles over Member States' competences to conclude this agreement. Nor would it seem to help to strip the EPLA of all provisions which potentially overlap with Community legislation, in particular the Brussels Regulation and the Enforcement Directive (2004/48/EC), and to leave the designation of the European Patent Court as common court of the Member States to the latter's national legislation[49] because this would rob the new system of the very harmonization and common body of procedural law it set out to achieve. The necessary participation of the Community is clearly recognized as part of the 'transfer' proposal.[50]

Once this step has been accepted, however, we are back to unanimity across the board. In order to negotiate and join the EPLA, which in itself is an annex to the European Patent Convention and open for accession only by the Contracting States

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[45] *Cf.* WAAGE/LUGINBUEHL, *supra* note 34 with reference to the decision of the ECJ in the matter *Parfums Christian Dior SA ./. Evora BV*, Case C-337/95, 1997 ECR I-6013, and PAGENBERG, Industry, Legal Profession and Patent Judges Press for Adoption of the European Patent Litigation Agreement (EPLA), 37 IIC 46 (2006).

[46] ECJ, Case C-467/98, [2002] ECR I-9519.

[47] ECJ, Opinion 1/03, [2006] ECR I-1145.

[48] *Cf. supra*, 3.1.

[49] *Cf.* ARNULL/JACOB, *supra* note 30.

[50] *Cf.* WAAGE/LUGINBUEHL, *supra* note 34, 13.

of that Convention the Community, acting through the Commission under a mandate according to Art. 300 EC Treaty,[51] would necessarily first need to join the EPC itself.[52] Art. 166(1) EPC remained unchanged in the 2000 revision and as of now only provides for the accession of 'states'.[53] This core provision will, therefore, need to be unanimously amended before any further steps can be taken on the EPLA trail as well as on the way to the Community Patent as whole.[54] The Community Patent is supposed to be built on the Community's membership in the European Patent Organization allowing the unitary right to grow out of the EPC prosecution procedure and ensuring the supremacy of the Community legal order over the European patent system as a whole. If the EPC 2000 is taken as a benchmark a further revision will – even under the somewhat peculiar provision of Art. 172 EPC[55] – need at least seven years following their adoption at a Diplomatic Conference to be ratified by the Member States and to enter into force. Even if the EPC revision and the EPLA agreements were negotiated and ratified in parallel by the Member States and the Commission, roughly another decade would thus seem to be the minimum time line even for the optional approach of the EPLA.

What is the scenario for the integrated Community approach on the other hand? The 'European Union Patent Court' as presently discussed in the Council is supposed to have jurisdiction for both Community and European Patents. Under the forthcoming Treaty of Lisbon Art. 97a EC Treaty now provides for an explicit legal basis for the creation of *'European intellectual property rights to provide uniform protection of intellectual property rights throughout the Union'*. Different from Art. 308 EC Treaty, which up to date has served as legal basis for Community legislation in this field, adoption of the measures necessary to establish these rights are no longer subject to unanimity. They are now subject to the ordinary legislative procedure of Art. 16(3) EC Treaty between the European Parliament and the Council, *i.e.* a qualified majority of Member States in the Council. Only – but certainly of utmost importance for the creation of the Community Patent as such – the language arrangements for these European intellectual property rights are still subject to a unanimous decision of the Council. This will once more prove to be a big hurdle to take. For the creation of a unitary litigation system for European and Community patents this second aspect is of a lesser relevance, though. The specialized Judicial Panels of the Court of First Instance of the ECJ introduced into the EC Treaty in

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[51] Which in itself requires a qualified majority or even unanimity in the Council depending on the scope of the intended agreement, *see* Art. 300 (2) and Art. 310 EC Treaty.

[52] Article 149a (1) (a) EPC 2000 which forms the basis for the optional approach of the EPLA in the legal order of the EPC does not change this situation as it also only provides for the power of 'Contracting States' to conclude the special agreements mentioned in this provision.

[53] *Cf.* TILMANN, *supra* note 15. Art. 89(1) of the EPLA provides for the accession of the Community, the draft itself acknowledges, however, that this step would have further implications which the draft does not yet address.

[54] Art. 33 EPC which delegates certain amendments of the Convention to the Administrative Council does not apply.

[55] *Cf.* KLOPSCHINSKI, Die Implementierung von Gemeinschaftsrecht und internationalen Verträgen in das Europäische Patentübereinkommen nach der Revisionskonferenz im Jahr 2000, 2007 GRUR Int. 555.

Nice have been renamed 'specialised courts' in Art. 225 *et seq.* in the Lisbon version, Art. 225a EC Treaty now also lowering the necessary quorum for their establishment to a qualified majority in the Council. Art. 229a EC Treaty, however, still requires a unanimous decision of the Council to actually confer jurisdiction in intellectual property matters upon the Court of Justice and continues to be limited to *'the application of acts adopted on the basis of this Treaty [i.e. the EC Treaty] which create European intellectual property rights'*. This change to a seemingly wider wording will not, therefore, allow the use of this provision to confer subject matter jurisdiction over European Patents on the Community Court as these rights are not based on the EC Treaty but rather on the EPC.[56] A separate agreement, again subject to a mandate under Art. 300 EC Treaty and subsequent ratification, will be needed to bring this about. The provisions transferring Community patent jurisdiction to the ECJ under Art. 229a EC Treaty can only enter into force after approval by the Member States, *i.e.* they continue to require ratification by all 27 Member States as was already the case under the Nice version of the Treaty.

5. Final Remarks

The current proposal for an integrated litigation structure for Community and European Patents incorporating the organizational and procedural elements of the Draft EPLA presents an opportunity to work the European patent system back out of the impasse encountered over the last years. The hurdles for this certainly remain high. The core measures that need to be taken both on the Community's and the European Patent Organization's side will require unanimous decisions from the Member States. Membership of both forums is virtually identical, and there is no material reason why the same Member States would be willing to agree to reform in Munich while refusing to follow through in Brussels. Both forums stand to gain a unitary litigation system which structurally and procedurally offers every guarantee to ensure a competitive and efficient patent handling of patent disputes. It is now up to the Commission and the French Presidency of the European Union in the second half of 2008 to keep the momentum up and to garner enough political support for these proposals. There is light at the end of the tunnel – if we want to see it.

[56] *Cf.* WAAGE/LUGINBUEHL, *supra* note 34.

Patents and Developing Countries

Peter Dirk Siemsen and *Ivan Bacellar Ahlert*

The recent 'WIPO Development Agenda'[1] proposed by Brazil and Argentina, revived the conflict of positions between industrialized and developing countries about the benefits of patents for developing countries.

The questioning about the role of patents for the development of developing countries started gradually in the course of the fifties. At that time, some American and British economists raised doubts about the benefits deriving from the patent system, influencing certain circles in Latin America.

At the end of the fifties, the tax authorities of Brazil examined the amount of royalties which were being remitted abroad by subsidiaries to their foreign parent companies. The outcome was that payments for the same products had been effected for transfer of technology, technical assistance, trademark licenses, patent licenses, the latter ones covering patents which were not being worked, expired patents and patent applications.

As a result of this situation, in 1958 the tax legislation was amended, by limiting the deduction of royalty payments as expenses drastically.

The role of patents became a subject of political discussions and in 1961, Brazil, represented by its delegate Prof. Guerreiro Ramos, co-sponsored by Bolivia, appeared before the General Assembly of the United Nations questioning the benefits of patents for developing countries.[2] After extensive debates, in which both the ICC and the AIPPI participated actively, it was decided to undertake a study about the role of patents in the development of developing countries. This study was finally completed and published in 1964.

Almost at the same time Brazil, Mexico and India, followed by other developing countries, raised the issue of transfer of technology to developing countries at UNCTAD. The aim was to promulgate a code of conduct regulating the transfer of technology to developing countries, a project which was never concluded in practice.

In Brazil, during the sixties, the existence of patents for pharmaceuticals became subject of dispute by the national pharmaceutical industry, which sustained the impossibility of its survival as long as such patents existed. At that time Brazil only granted patents for manufacturing methods.[3]

In 1969 Brazil abolished patent protection for any type of pharmaceutical and foodstuff inventions[4] and even considered leaving the Paris Convention, but this idea was abandoned after a visit of the Director-General of WIPO to Brazil.

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1 Available at <http://www.wipo.int/ip-development/en/agenda/> (as of March 2008).
2 UN General Assembly, Doc. A/C.2/L.565, November 8, 1961.
3 Decree-Law nº 7.903 of 1945 – Revised by Decree-Law nº 8481 of 1945, Art. 8 lit.a.
4 Decree-Law nº 1005/1969.

However, despite this anti-patent atmosphere (restricted to pharmaceuticals), in 1970 Brazil became a founding member of the PCT [5] and one of the first countries to ratify the same.[6]

The negative climate towards the benefits of the patent system for developing countries spread over to other countries in South America and the restrictions contained in Decisions 24 of January of 1971 and 85 of June of 1974 of the Andean Pact[7] were clear examples of this.

At that time the United Nations was divided into three groups, namely:

Group B – Industrialized countries
Group D – Socialist countries
Group of 77 – Developing countries
(with a membership of more than 140 countries)

This division of membership still existed while the revision of the Paris Convention was being undertaken, from the middle seventies to the early eighties. Unfortunately, the revision was never concluded for lack of agreement between the various parties.

One of the most controversial and difficult issues of the Revision was Article 5, dealing with compulsory licenses. The Group of 77, under Brazil's leadership, pleaded for exclusive compulsory licenses, which was totally unacceptable to the Group B countries. In view of these unsolvable hurdles, the revision was postponed *'sine die'*.

Influenced by the worries about increasing counterfeiting activities around the world, the United States, in the early eighties, proposed to include the subject of counterfeiting in the agenda of the next GATT revision for the purpose of harmonizing or even standardizing the measures to fight counterfeiting on a worldwide basis. This proposal was expanded to cover all areas of Intellectual and Industrial Property rights and their enforcements.

During the preparatory discussions for the Uruguay round of GATT, in 1987 when the Uruguay round was initiated, TRIPS[8] became one of the 15 chapters to be negotiated.[9] The TRIPS negotiations aimed at establishing the minimum standards of protection and enforcement for the Intellectual and Industrial property rights. They met with severe opposition by the developing countries, again led by Brazil and India.

After intensive discussions and negotiations over a nine-year period, the new GATT agreement, including the TRIPS chapter, was finally signed in Marrakech in 1994. However, the conclusion of the TRIPS agreement, was only possible at the last minute, when the industrialized countries promised to reduce subsidies for agri-

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5 Patent Cooperation Treaty – Done at Washington on June 19, 1970.
6 Decree-Law nº 81742/1978.
7 Chile, Peru, Bolivia, Equador, Colombia and Venezuela.
8 TRIPS – Agreement on Trade-Related Aspects of Intellectual Property Rights.
9 Tariffs; Non-tariff barriers; Natural resource products; Textiles and clothing; Agriculture; Tropical products; GATT articles; Tokyo Round codes; Anti-dumping; Subsidies; Intellectual Property; Investment measures; Dispute settlement; The GATT system; Services.

cultural products and facilitate the import of agricultural products from the developing countries. This promise has not been fulfilled.

Until the end of 1994, a large number of countries had ratified the new GATT agreement, which went into force on January 1, 1995 under the administration of the new international entity, the World Trade Organization – WTO.

TRIPS provided a one-year period for the implementation by the industrialized countries and five and ten-years[10] periods for developing and least developed countries, respectively.

Although the final text of TRIPS did not please everybody, this agreement became the most important instrument since the Paris and the Berne Conventions, as it meant the beginning of the globalization of protection of Intellectual and Industrial Property rights and their enforcement.

By joining TRIPS, all WTO members agreed to introduce the minimum standard of protection and enforcement in their legislations and practices. However, this was not achieved without difficulties, mainly in developing and least developed countries. As a matter of fact, for many countries it did not bring the expected benefits. They ratified TRIPS, adapted their legislation and reorganized their offices, but they continued to be confronted with the absence of local users of the system.

Before developing countries fully apply TRIPS, they are already pressed through Free Trade Agreements[11] to adopt higher standards of protection and enforcement and ratification of Conventions, with little use to them. Such pressure only increases the resentment against the patent system.

One of the examples were the costs for treating AIDS with patented drugs. This issue became one of the major disputes during the Doha round negotiations and was finally solved under Paragraph 6, allowing special compulsory licenses for patented drugs to be used in least developed countries.[12] One particular remark in this respect relies in that although there is a common complaint in Brazil that the country was compelled by TRIPS to accept the patentability of pharmaceutical inventions, the truth is that in the initial debates on the Bill for a new patent law there was broad recognition that the lack of such patents for many years brought more drawbacks than advantages with respect to the availability of drugs in Brazil. The initial Bill was approved by the Lower House of the Brazilian Congress in June of 1993 already providing for the patentability of pharmaceutical inventions, which was earlier than the conclusion of the Uruguay Round of GATT, and before the entry into force of TRIPS.

Another example is the demand for ratification of the PCT and the Madrid Protocol. When we look at the developing countries, and even emerging countries, these treaties are one way routes. Usually the number of patent and trademark appli-

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[10] Art. 65-66 TRIPS – Transitional Arrangements.

[11] US-Chile, US-Peru, US-Colombia, US-Central America and Dominican Republic (CAFTA), US-Panama.

[12] WT/MIN(01)/DEC/2 – Declaration on the TRIPS agreement and public health, adopted on 14 November 2001, available at <http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.pdf> (as of March 2008).

cations to be filed abroad is at a minimum in those countries, benefiting foreign applicants and registrants. This unbalance explains why developing countries have been reluctant to sign these treaties.

The divergences between developed and developing/least developed countries (LDCs) continued also in WIPO, in the context of discussions about patent law harmonization.

A Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as far as Patents are concerned was held in The Hague, from June 3 to 28, 1991, based on the so called 'Basic Proposal' for the Treaty and the Regulations (document PLT/DC/3, dated December 21, 1990). This conference collapsed due to an impasse created specially between the USA that refused to accept a system based on the first-to-file principle – which opposed to the American first-to-invent system – and Europe that refused to accept a uniform and wide 12-month novelty grace period unless the USA would move to a first-to-file system. The impasse was therefore merely between developed countries.

Following the unsuccessful attempt to adopt a wide harmonization treaty, a general agreement was met to divide harmonization into formal and substantive issues, which lead to the adoption of the PLT in the Diplomatic Conference of 2000. At the beginning of this conference a contentious issue arose, creating a split between a group of developing countries and a group of developed countries: Colombia and other countries wanted to include in the treaty the issue of the identification of the origin of genetic resources in patent applications.[13] The USA strongly opposed this proposal, and practically the whole first day of the conference was spent with closed door meetings to negotiate the withdrawal of Colombia's proposal in exchange for a proposal to set up a new body: the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, to be dedicated to discussions on access to genetic resources and benefit-sharing, protection of traditional knowledge, and protection of expressions of folklore, including handicrafts.

However, this was perhaps the origin of a split that would last for many years. The issue of genetic resources was again introduced when discussions for the adoption of a substantive patent law treaty, the SPLT, started, and the steady opposition made by developed countries to deal with this matter within the SPLT may have triggered even wider protests by developing countries and LDCs.

Possibly also as a late reaction to a Conference on the International Patent System in Geneva, March 25-27, 2002 aimed at suggesting a Patent Agenda for WIPO, in a communication dated April 5, 2005, WIPO's International Bureau received from Brazil, on behalf of the 'Group of Friends of Development', a submission entitled 'Proposal to Establish a Development Agenda for WIPO: An Elaboration of Issues Raised in Document WO/GA/31/11'. This proposal was formally submitted at the First Session of the Inter-sessional Intergovernmental Meeting on a Develop-

[13] PIRES DE CARVALHO, Requiring Disclosure of the Origin of Genetic Resources and Prior Informed Consent in Patent Applications Without Infringing The TRIPS Agreement: The Problem and The Solution, 2 Re-Engineering Patent Law 371-401 (2000).

ment Agenda for WIPO, Geneva, April 11-13, 2005 (document IIM/1/4 of April 6, 2005).

This document set up a wide discussion as to the development aspect of IP rights, and laid down some basic concepts such as that IP standards for developing countries and LDCs should not necessarily be the same as those for developed countries ('one size does *not* fit all'), that the development of the IP system should consider the interests of all parties not only of owners of IP rights, and that WIPO should work towards promoting the public domain.

Due to an ambitiously rich list of substantive issues included on the draft SPLT, discussions were advancing too slowly in WIPO. A group of developed countries suggested a 'reduced basket' of items to try to expedite the adoption of a new treaty, which proposal was strongly opposed by a large group of developing countries and LDCs, as this would leave issues of interest for these countries again outside the treaty.

Patent offices of developed countries were, however, facing severe difficulties with the steadily increasing number of patent applications filed each year, and pleaded the urgent adoption of harmonized rules that would allow the large offices more widely to rely on each other's search and examination results.

As the contentious environment continued in WIPO, a group of developed countries, the so called B+, decided to discuss harmonization outside WIPO in order to try to reach a rapid agreement on the desired harmonization at least on the items of the reduced basket. They soon realized that the developing countries were not the only obstacle to advance in the discussions, and dissents – previously hidden by discussions on issues of interest of developing countries – arose, such as a still unresolved dispute on the grace period.

The way for developing countries to overcome these controversies is to follow the examples of Korea, China and India, which emphasized the importance of education. There are no successful innovation programs if a preliminary educational effort is missing.

Further, it is useless to tell developing countries how good Intellectual Property is for their development if they do not understand how to proceed. The assistance they need is not theoretical teaching, but examples on how to recognize inventions, small or big, and the advantage to protect them.

Assistance is also needed on how to commercialize and license the patented inventions so that economic benefits may be obtained.

The difference between countries is not only rich and poor, but the capacity to generate technology. Korea's success story, rising from an underdeveloped country in the sixties to a sophisticated producer of technology and inventions today is the best example to be followed by other developing countries.

Territorial Intellectual Property Rights in a Global Economy – Transit and Other 'Free Zones'

Alexander von Mühlendahl and *Dieter Stauder*

1. Introduction

The conflict between the requirements of a global economy and the territorial nature of intellectual property rights is characteristic of the pressure that globalization exercises on traditional notions of territorially delimited jurisdictions, an issue by no means limited to or a specialty of intellectual property law. Harmonization or unification of the law, regional or world-wide, is one solution. Professor Josef Straus, to whom this article is dedicated, has committed his professional life to improving the legal environment for the protection of intellectual property. In the following we will describe a particular conflict between freedom of trade, intellectual property protection and territorial jurisdiction that has recently surfaced in the European Union, which shows that there are indeed unfortunate 'free zones', and perhaps legislation is needed to close the gap.

Intellectual property rights are by their nature territorially limited. Goods are made where the business decisions of today's globally operating enterprises see advantages of cost, efficiency and quality. Intellectual property rights do not necessarily exist in all manufacturing countries. When goods that infringe in some jurisdictions pass through other jurisdictions on the way to their final destination, the question presents itself whether these goods may be seized where they are found, just as illegal drugs and other 'illicit' products are subject to seizure and destruction. The question of 'attaching' infringing goods does not only arise when gaps in protection exist in the country of origin or the country of destination, but also when the goods are protected everywhere, namely when the transit country is the place of litigation. Finally, we have the problem of product piracy, an evil which by now affects billions of Euros or Dollars. It often seems that the traditional nation-state approach to intellectual property rights, dating from the 19th Century, is inadequate to deal with this phenomenon.

We will have a look at the principles, at 'free zones', at transit, and at issues of jurisdiction.

2. The Principle of Territoriality

According to the territoriality principle intellectual property rights (patents, trademarks, copyrights, designs, plant variety rights, trade names, etc.) are protected only within and in accordance with the legal rules of the jurisdiction (country, region) where they have been granted. The territoriality principle defines the territorial scope or area where the intellectual property right is protected, and it is at the

same time a reference to the legal rules governing its protection.[1] As a corollary, the authorities of the jurisdiction where the right has been granted or registered have exclusive competence for decisions regarding its validity.[2] The territoriality principle governs the international protection of intellectual property rights. The principle underlies the international conventions in this field – the Paris Convention, the Berne Convention, the TRIPS Agreement – and the national laws governing the protection of intellectual property rights. Two statements are common ground: first, the law applicable to the conditions of protection and rights conferred as well as their limitations is that of the jurisdiction under which the right is protected. Second, the jurisdiction where the right is protected and the place of infringement must coincide for the exclusive right to be applied. These rules do not preclude taking into account acts that were committed outside the jurisdiction, the first placing on the market outside of the jurisdiction in the case of international exhaustion being a prominent example. Also, in the case of infringements, foreign acts may be considered for the determination of liability.

3. The Territorial Scope of Protection

In case of multistate (international) infringements, the determination of the territorial scope of protection is a preliminary issue to the determination of infringement. What is the position of the actual determination of the concrete territory, and its relevance in the context of global protection of intellectual property rights?

The Paris Convention, the 'basic law' of international industrial property protection, does not require that members actually enforce IP rights in the whole of the territory over which they have authority. Article 24 of the Paris Convention,[3] allowing members to extend protection to colonies and dependent territories, cannot provide an argument to hold otherwise, quite apart from the fact that this provision is quite

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[1] *See*, for the principles, LADAS, The International Protection of Industrial Property, 17 *et seq.* (1930); ROUBIER, Le droit de la propriété industrielle, vol. 2, 55 (1954); TROLLER, Immaterialgüterrecht, vol. 1, 148 *et seq.* (2d ed. 1968); as regards to trade marks, BEIER, Territorialität des Markenrechts und internationaler Wirtschaftsverkehr, 1968 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 8, 12; V. MÜHLENDAHL, Territorial begrenzte Markenrechte und einheitlicher Markt (1980); concerning patents, STAUDER, Patentverletzung im grenzüberschreitenden Wirtschaftsverkehr (1975). In international private law (conflict of laws) it has by now become similarly a commonly accepted rule that the applicable law is the *lex protectionis*; this has now been codified for the European Union in Article 8 of the Regulation (EC) No. 864/2007 of the European Parliament and of the Council of July 11, 2007 on the law applicable to non-contractual obligations (Rome II), [2007] L 199, p. 40.

[2] For the European Union, see Article 22 No.4 of Council Regulation (EC) No 44/2001 of 22 December 2000 on Jurisdiction and the Recognition and Enforcement of Judgments in Civil and Commercial Matters, [2001] OJ L 12, p. 1. Interestingly, this exclusive competence is limited to rights subject to registration. Many intellectual property rights exist without registration (copyright being the most prominent example, but we could add use-based trademark rights, trade names, unregistered design rights), and apparently the court seized with the matter may judge their validity even if this is not the court of jurisdiction where the right is valid.

[3] *See* BODENHAUSEN, Guide to the Application of the Paris Convention for the Protection of Industrial Property as revised in 1967, Article 24, note (b) (1968).

out of date by now. If a Paris Convention member leaves some of its territory free from protection, this does not violate the national treatment principle – the absence of protection affects nationals and foreigners alike.[4] The TRIPS Agreement does not provide an argument against 'protection-free' zones either.

In the current practice of the Paris Convention and TRIPS Agreement (WTO), members nevertheless ensure that their legislation covers their entire territory within their national borders, and that they even extend the coverage of their intellectual property rights to new technical installations under their sovereignty and control.[5] It is interesting to note that the Agreement Relating to Community Patents was to extend, beyond the territorial waters, to the continental shelf.[6] U.S. patent law extends to space stations and satellites.[7] In these situations protection is 'projected' (extended) to artificial installations and devices which are subject to the sovereignty of a particular state without being part of their territory,[8] strictly speaking, as is also the case with ships and oil rigs on the high seas.[9]

4. Customs-free Zones

It is a constant state practice that the territorial scope of protection of intellectual property rights extends to customs-trade zones, free ports, and similar areas which domestic law exempts from customs control. Transactions relating to patent infringing goods which are stored in customs-free zones, even if their destination is a third country where there exists no patent protection, constitute patent infringement.[10] Goods present within a particular territory prior to customs clearance, such as goods in customs-trade zones, must be strictly distinguished from transit goods which merely move through a particular territory.[11]

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[4] Territorially limited rights within the same jurisdiction are well established in trademark law for use-based rights, *see* V. MÜHLENDAHL, *supra* note 1, *passim*.

[5] *See* STAUDER, *supra* note 1, at 44; BÖCKSTIEGEL/KRÄMER/POLLEY, Kann der Betrieb von Satelliten im Weltraum patentrechtlich geschützt werden?, 1999 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 1, 6.

[6] Article 9 of the Agreement (which, as is well known, never entered into force).

[7] Complications arise when such objects are operated by international organisations, such as ESA; *see* BÖCKSTIEGEL ET AL., *supra* note 5, at 4, on Article 21 of the so-called 'Intergovernmental Agreement' of September 29, 1988.

[8] For a general discussion, *see* BÖCKSTIEGEL ET AL., *supra* note 5.

[9] *See* STAUDER, *supra* note 1, at 19; STAUDER, Patent Protection in Extraterritorial Areas (Continental Shelf, High Seas, Air Space and Outer Space), 7 IIC 460 (1976).

[10] *See* Reichsgericht (RG) of October 25, 1890, 21Entscheidungen des Reichsgericht in Strafsachen (RGSt.) 205; Reichsgericht of December 2, 1899, 45 Entscheidungen des Reichsgerichts in Zivilsachen (RGZ) 147, 150; *G.D. Searle & Co. v. Byron Chemical Co.*, 223 F.Supp. 172, 174 (E.D.N.Y. 1963); *Smith, Kline & French Lab. Ltd. v. R.D. Harbottle Mercantile Ltd.*, [1980] RPC 363, 374. U.S. and English case law traditionally do not apply the notion of 'transit,' because these systems are not familiar with the broad notion of 'placing on the market' (the German 'Inverkehrbringen'); rather they apply the narrower notion of 'sale.' English law now has accepted the broader approach of the Community Patent Convention.

[11] This is a statement which dates from 1915! *See* POUILLET, Traité théorique et pratique des brevets d'invention et des secrets de fabrique, 848 *et seq.* note 715 (6th ed. 1915).

We will return to 'transit' in the strict sense next, but will first have a closer look at the customs-free zone situation, and more specifically at a recent judgment of the European Court of Justice involving trademarks and 'grey market' goods.

European trademark law as harmonized by the 1988 Trade Marks Directive[12] and unified by the 1993 Community Trade Mark Regulation[13] provides for exclusive rights for the proprietor of a (registered) trademark, which include expressly the right to prohibit the affixation of the mark to the goods, the placing of the goods on the market, and the importation and exportation of goods to which the infringing sign is affixed.[14]

When the proprietor of the trademark AQUAFRESH learned that a container of unauthorized (but genuine) AQUAFRESH toothpaste had entered the Rotterdam customs-free harbor from South Africa, he had the infringing goods seized as infringing.[15] The importer, Class International, applied to the Rotterdam Rechtbank for a release of the goods. When this was refused, Class appealed to the Gerechthofte's-Gravenhage. This court referred a series of questions to the European Court of Justice for a preliminary ruling pursuant to Article 234 of the EC Treaty which required a ruling on some of the issues involving the territorial scope of trademark protection in the Union.[16] The judgment of the Court was delivered on October 18, 2005.[17]

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[12] First Council Directive 89/104EEC of 21 December 1988 to approximate the law of the Member States relating to trade marks, OJ 1989 No L 40, p. 1.

[13] Council Regulation (EC) No 40/94 of 20 December 1993 on the Community trade mark, [1994] OJ L 11, p.1.

[14] Article 5(1) and (3)(b) of the Directive; Article 9(2) of the Regulation.

[15] In Europe, genuine 'grey market' goods infringe domestic intellectual property rights; for trademarks, *see* the leading case ECJ, July 16, 1998, Case C-355/96, 1998 ECR I-04799 – *Silhouette International Schmied GmbH & Co. KG v. Hartlauer Handelsgesellschaft mbH*.

[16] These were the referred questions:
(1) May the proprietor of a trade mark oppose the (direct or indirect) introduction without his consent of goods from third countries, bearing a trade mark within the meaning of [the Directive] and/or of [the Regulation], into the territory of a Member State (in this case the territory of the Netherlands/Benelux countries) in the context of transit or transit trade as referred to below?
(2) Does 'using a sign in the course of trade' within the meaning of the opening words of Article 5(1) in conjunction with Article 5(3)(b) and (c) of the Directive and the opening words of Article 9(1) in conjunction with Article 9(2)(b) and (c) of [the Regulation] cover the storing, in a customs office or warehouse within the territory of a Member State, of original branded goods (bearing a trade mark within the meaning of [the Directive]), the [Benelux uniform trade mark law] and/or [the Regulation]) which have not been imported into the EEA by the trade mark proprietor or with his consent, which come from outside the EEA and which have the customs status of non-Community goods (for example, T1 or [accompanying administrative document])?
(3) Does it make any difference to the answers to Questions (1) and (2) whether or not, at the time of entering the abovementioned territory, the final destination of those goods is specified, or that no (purchase) agreement has or has yet been concluded with a customer in a third country in respect of those goods?
(4) In the context of answering Questions (1), (2) and (3), is it relevant whether there are additional circumstances, such as
(a) the circumstance that the trader, who is the owner of the goods in question or in any event is entitled to dispose of them and/or engages in parallel trade, is established in one of the Member States;

The Court analyzed the various provisions applicable to the customs procedures of the European Union[18] and concluded that an 'importation' as used in the Directive and the Regulation was not an abstract concept like the mere crossing of the borders or entry into the territory, but needed to be interpreted with a view to the 'placing on the market' and necessitated a prior clearance for free circulation in the Union. Infringement therefore required necessarily that the goods were destined for free circulation in the Union, and not for a destination outside of the European Union. The central statement is the following:

> 50 The answer to the first part of the first question and the second and third questions must therefore be that Article 5(1) and (3)(c) of the Directive and Article 9(1) and (2)(c) of the Regulation must be interpreted as meaning that a trade mark proprietor cannot oppose the mere entry into the Community, under the external transit procedure or the customs warehousing procedure, of original goods bearing that mark which had not already been put on the market in the Community previously by that proprietor or with his consent. The trade mark proprietor cannot make the placing of the goods at

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(b) the circumstance that those goods are being offered for sale or sold by the trader established in a Member State, from that Member State, to another trader established in a Member State, whilst the place of delivery is not (yet) specified;
(c) the circumstance that those goods are being offered for sale or sold by the trader established in a Member State, from that Member State, to another trader established in a Member State, whilst the place of delivery of the goods to be offered for sale or sold in that way is specified but the final destination is not, whether or not with the express statement or contractual restriction that the goods involved are non-Community (transit) goods;
(d) the circumstance that those goods are being offered for sale or sold by the trader established in a Member State to a trader established outside the EEA, whilst the place of delivery and/or final destination of the goods may or may not be specified;
(e) the circumstance that those goods are being offered for sale or sold by the trader established in a Member State to a trader established outside the EEA, who the (parallel) trader knows or has serious reason to suppose will resell or supply the goods in question to ultimate consumers within the EEA?
(5) Must the term 'offering' in the provisions referred to in Question (1) be construed as also meaning the offering (for sale) of original branded goods (bearing a trade mark within the meaning of the directive, the [Benelux uniform trade mark law] and/or [the Regulation]) which are stored in a customs office or warehouse within the territory of a Member State, which have not been introduced into the EEA by the trade mark proprietor or with his consent, which come from outside the EEA and which have the status of non-Community goods (for example, T1 or [accompanying administrative document]), in the circumstances set out above in Questions (3) and (4)?
(6) With which of the parties does the burden of proof rest as regards the acts mentioned above under (1), (2) and (5)?

[17] Case C-405/03, *Class International BV v. Colgate-Palmolive et al.* ('*Grand Chambre*'), [2005] ECR I-8735.

[18] Council Regulation (EEC) No. 2913/92 of 12 October 1992 establishing the Community Customs Code, [1992] OJ L 302, p.1 provides for the 'external transit procedure' which allows the movement of non-Community goods within the Community customs territory without such goods being subject to import duties and other charges or commercial policy measures, the 'customs warehousing procedure' which allows the storage of non-Community goods in a customs warehouse. Only goods released for free intra-Community circulation become Community goods under Article 79 of the Customs Code and benefit from the free circulation under Article 23.

> issue under the external transit procedure or the customs warehousing procedure conditional on the existence, at the time of the introduction of those goods into the Community, of a final destination already specified in a third country, possibly pursuant to a sale agreement.
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> …
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> 59 The likelihood that the goods will be put on the market in the Community cannot, however, be assumed on the sole basis of the fact, referred to or implied in paragraphs (a) and (e) of the national court's fourth question, that the owner of the goods, the addressee of the offer or the purchaser engage in parallel trade. Other evidence must prove that the offering or the sale necessarily entails putting on the market in the Community the specific goods at issue.
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> 60 In addition, the trade mark proprietor can assert its right of prohibition only against the trader who puts or is preparing to put non-Community goods bearing that mark on the market in the Community, or else offers or sells those goods to another trader who is bound to put them on the market in the Community. He cannot rely on his right against a trader who offers or sells those goods to another trader on the sole ground that that trader is likely then to put them on the market in the Community, a situation envisaged by subparagraph (e) of the national court's fourth question.
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> 61 The answer to the second part of the first question and the fourth and fifth questions must therefore be that 'offering' and 'putting on the market', within the meaning of Article 5(3)(b) of the Directive and Article 9(2)(b) of the Regulation, may include, respectively, the offering and sale of original goods bearing a trade mark and having the customs status of non-Community goods, when the offering is done and/or the sale is effected while the goods are placed under the external transit procedure or the customs warehousing procedure. The trade mark proprietor may oppose the offering or the sale of such goods when it necessarily entails the putting of those goods on the market in the Community.

When we look for a closer explanation of why this result is mandated, the only answer we find in the judgment is that there is a difference between goods in 'free circulation' and goods under a regime outside of the free circulation. One might perhaps have expected that the Court would draw a distinction between 'mere' transit and transactions relating to 'imported' goods undertaken in custom-free areas, such as sales or other activity (re-packaging, re-labelling), and perhaps also that there may be a difference between 'original' goods (i.e. 'grey market' goods) and otherwise infringing goods (there is none), but no such distinctions are forthcoming. There is also no discussion – and not even a reference to the intellectual property traditions of the Member States.[19]

The Customs Code provides in its Article 58 that goods may at any time be assigned any customs-approved treatment, but goes on to say that this shall not preclude the imposition of prohibitions or restrictions 'justified on grounds of the protection of industrial and commercial property.' The Court states in this respect:

[19] It is also disappointing that the Advocate General Jacobs, did not discuss this in his Opinion (of May 26, 2005).

> (47) The saving provision in question is only for cases in which the customs-approved treatment or use would adversely affect industrial and commercial property rights. Placing non-Community goods under a suspensive customs procedure does not make it possible for them to be put on the market in the Community in the absence of release for free circulation. In the field of trade marks, such placing of original goods bearing a mark is not therefore, per se, interference with the right of its proprietor to control the initial marketing in the Community.

The consequences of this judgment for trademark protection are harsh: The trademark proprietor is no longer able to seize infringing goods in customs-free zones, regardless of whether or not transactions are made (storage, sale, etc.), and the customs seizure of counterfeit (infringing) goods is similarly endangered or made impossible.[20] Since penal sanctions for trademark infringement are linked to the civil infringement provisions, police and other enforcement agencies are similarly powerless. It should even be possible under the Court's analysis to produce and market infringing goods in a customs free-zone and export them to third countries.

These consequences are not limited to trademark law. The same provisions on placing on the market and import and export rights of the right holder also apply to Community design rights, and there is no reason to assume that placing on the market and importation will be interpreted differently when copyright law or patent law is at issue.

Under the interpretation adopted by the Court it will – finally – be very difficult for European Union authorities and right holders to argue with third countries when they allow the production of or transactions relating to infringing goods in customs-free zones.

We will return to some of the points when we discuss transit.

5. 'Mere' Transit

Transit may be described as the transportation of goods from the territory of a foreign country through (by land, water, or air) the domestic territory to a destination in another foreign country. 'Mere' transit is the simple uninterrupted transport through or over the territory (an example may be the shipping of goods though territorial waters, or the transportation in sealed containers via rail or road), whereas other forms of transit may include activities such as storage in a customs free zone, repackaging, etc.

In the present context we are focussing on situations where the goods are non-infringing in the country of origin, infringing in the country (region) through which they transit, and non-infringing at their destination. We will look at other constellations later.

With regard to patent law (and also with regard to other intellectual property rights) the statement seems to be widely recognized and accepted that 'mere transit' through the territory of a country where (patent) protection exists does not amount

[20] The customs seizure rules will be looked at in more detail in the transit context.

to infringement, even though the goods 'enter' the territory and 'exit' the territory, that is even though there is, to some extent anyway, an 'importation' and 'exportation'.[21] The transit must be such that there is no risk of the goods being 'diverted' and eventually ending up in domestic circulation. Admitting such 'mere transit' and exempting it from the application of intellectual property right infringement is justified by balancing the interests of unhindered international trade against those of the right holder.

The legal starting point for this result is, at least in the area of patent law, the theory of the 'independence' of the exclusive rights – in other words, the 'acts' – reserved to the right holder. Placing on the market is a prohibited act, as is the use. 'Importation', expressly included in the (non-exhaustive) list of the types of use reserved to the right holder in European trademark and design legislation, belongs to the exclusive right to authorize – and the right to prohibit – 'placing on the market'. It is difficult – if not impossible – to conceive '(mere) transit' as a sub-case of that right.[22]

The exclusive rights reserved to patentees have been largely harmonized in Europe, both in the EU Member States and beyond, without any European Union mandate, following the model of Article 25 of the Community Patent Convention. Importation and possession (stocking) are linked to the placing of infringing goods on the domestic market. The European legal rules are somewhat different however in the field of trademarks and design. Thus, according to Article 5(3) of the Trade Marks Directive and Article 9(2) of the Community Trade Mark Regulation only the 'stocking' of goods is expressly conditioned that it must be for the purposes of offering or placing on the market, and no such condition is included for the importation (and of course neither for exportation).

For infringement of an intellectual property right, it is sufficient if one of the reserved (infringing) acts is done within the domestic territory, even if other activity takes place abroad in protection-free territory. This was recently confirmed by the German Federal Supreme Court in a copyright case.[23] In that case, the Court interpreted the infringing act of 'offering.' It held that the offering of the famous 'Wagenfeld' lamp in a German magazine for sale, with the sale to be executed in

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[21] This has been recognized for many decades, *see* STAUDER, *supra* note 1, at 151, 192 *passim*; for Germany *see* the landmark trademark judgment of the German Supreme Court of January 15, 1957, 1957 GRUR 213 – *Taeschner-Pertussin*; SCHAREN in: BENKARD, Patengesetz, § 9 PatG, note 45 (10th ed. 2006) with further references; KEUKENSCHRIJVER in: BUSSE, Patentgesetz, § 142a PatG, note 6 (6th ed. 2003); KRASSER, Patenrecht, 786 *et seq.* (5th ed. 2004); *see* also Swiss Supreme Court of July 6, 1989, 1991 GRUR Int. 227, 228 – *Doxycyclin II*.

[22] It is of course similarly difficult to qualify 'exportation' as an element of the 'placing on the market', which always refers to the 'domestic' market. It is interesting to note that the Court in the *Class* judgment did not even once mention the right to prohibit exportation. Clearly, the right to exclude export cannot presuppose that the goods must have been placed on the domestic market before they are exported.

[23] German Federal Supreme Court (Bundesgerichtshof, BGH) of February 15, 2007, 2007 GRUR 871 – *Wagenfeld-Leuchte*.

Italy where the lamp was not protected, was copyright infringement.[24] The same principle applies in patent law when the exclusive right to offer is involved. It is irrelevant whether the offered product is in a foreign country or whether this product is offered for sale in that country.[25] In contrast to importation and possession as infringing acts, patent law does not require for the 'offering' that the product is intended to enter the internal market or to be used there.

The 'Wagenfeld' judgment relies rightly on the case law developed in patent law und would thus seem to be applicable beyond copyright law in other fields as well.[26] It seems clear from that case that the 'insulation' of the market where the intellectual property right is protected from 'projections' coming from abroad where no protection exists, belongs to the interests of the right holder which the law should or, as we would argue, must protect. The 'Wagenfeld' judgment also invokes the policy of EU legislation, to 'secure a high level of protection and rigorous and effective measures, which requires considering the offer of copies as an infringement of the distribution right even if the placing on the market is to take place abroad.'[27]

If it is accepted that doing business with protection-free countries belongs to the protected interests of the (domestic) right holder, the logical consequence must be that only the 'mere' transit from a protection-free country via the domestic territory to a protection-free other country is permitted. If that is the case, the interests in freedom of trade prevail, and this should apply regardless of whether or not the transit is done with or without a single document, by the same or different forwarder, and whether or not the forwarder or shipper acquires a security interest over the goods. What is relevant is that there is no risk of the goods entering the domestic channels of commerce, and, of course, commerce may be carried out within custom-free zones just as much as after customs clearance.

As a matter of principle, therefore, it should be irrelevant whether the goods are not (yet) processed for free domestic circulation but are still under customs control. However, as far as the European Union and third countries are concerned, once the goods are cleared for free circulation they become Community goods and are (placed) on the market in the Community, and under the principles applied in the *Class* judgment they should be subject to the control of the right holder.[28] This is, it

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[24] The case is an example of the difficulties arising when in one country no protection exists, while in a neighboring country the same product is still protected. The advertisement was to the effect that the purchaser must come to Italy to buy the lamp. The sale in Italy did not infringe, nor did the subsequent importation by the purchaser from Italy to Germany.

[25] SCHULTE, Patentgesetz mit EPÜ, § 9, note 45 (7th ed. 2005).

[26] *See* Court of Appeal (Hanseatisches Oberlandesgericht) Hamburg of April 2, 1998, 1999 GRUR Int. 67, 68 *et seq.* – *Enrofloxacin*, on a case involving brokerage in Germany regarding goods traded abroad where no protection existed.

[27] German Federal Supreme Court (Bundesgerichtshof, BGH), *supra* note 23, at 874 para. 33.

[28] However, importation privately done and for private purposes, for example, is not a trademark or patent infringement. However, absent the 'private use' exception, clearly making goods and marking them without any offering or placing on the internal market only for delivery into foreign patent or trademark-free markets is qualified as an infringement. The 'monopoly' of the industrial rights includes theses commercialization in relation to foreign markets, and that quite irrespective of whether parallel rights exist in the foreign market. If it were otherwise, the 'exportation' right would become meaningless.

is submitted, too narrow, because domestic transactions may be carried out in customs-free zones, and it is too broad because a transit may also take place with goods which are not (or never were) under customs control.

Let us look at the case law of the European Court of Justice. There are three cases which merit attention.

The first one is a decision from 2000. The Commission had brought an infringement action against France because the French law provided that French customs authorities could intervene when products were transported through France which were made in one Member State and their destination was another Member State, but which would infringe design rights in France. The Court held that France had violated its obligations under the Treaty provisions safeguarding the free movement of goods.[29]

A few years later, the French Cour de Cassation referred a similar case to the ECJ which did not involve a transit from one Member State through the territory of protection to another Member State, but a transit from Spain via France to Poland, at that time as a non-Member State. Rioglass was the maker of windshields in Spain that were transported by Transremar through France to Poland. The goods were seized by the French customs authorities for infringement of French trademarks, and the case wound its way to the Cour de Cassation which referred the following question to the ECJ:

> Is Article 30 of the Treaty, now Article 28 EC, to be interpreted as meaning that it precludes the implementation, pursuant to the Code de la propriété intellectuelle, of procedures for detention by the customs authorities of goods lawfully manufactured in a Member State of the European Community which are intended, following their transit through French territory, to be placed on the market in a non-member country, in the present case, Poland?

The decision of the Court was unequivocal:[30]

> (29) Therefore, a measure of detention under customs control, such as that in issue in the main proceedings, cannot be justified on the ground of protection of industrial and commercial property within the meaning of Article 30 EC.
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> (30) In those circumstances, the answer to the question referred for a preliminary ruling must be that Article 28 EC is to be interpreted as precluding the implementation, pursuant to a legislative measure of a Member State concerning intellectual property, of procedures for detention by the customs authorities of goods lawfully manufactured in another Member State and intended, following their transit through the territory of the first Member State, to be placed on the market in a non-member country.

Interestingly the Court judged the case exclusively under Articles 28 and 30 of the EC Treaty and did not even refer to the Trade Marks Directive which had been in the books for a number of years. The judgment was based on the statement found in many ECJ judgments relating to parallel importation, namely that restrictions of the

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[29] Case C-23/99, *Commission v. France*, [2000] ECR I-7653..

[30] Case C-115/02, *Administration des douanes v. Rioglass S.A.*, [2003] ECR I-12705.

importation of goods on the basis of intellectual property rights can be justified under Article 30 EC (previously Article 36 of the EC Treaty) only when the specific subject matter of the exclusive right is affected. In regards to trademarks, the ECJ referred to its previous case law as follows:

> 25 With respect to trade marks, it is settled case-law that the specific subject-matter of a trade mark is, in particular, to guarantee to the owner that he has the exclusive right to use that mark for the purpose of putting a product on the market for the first time and thus to protect him against competitors wishing to take unfair advantage of the status and reputation of the trade mark by selling products illegally bearing it (see, in particular, Case 16/74 *Centrafarm* [1974] ECR 1183, paragraph 8, Case 102/77 *Hoffmann-La Roche* [1978] ECR 1139, paragraph 7, and Case C-349/95 *Loendersloot* [1997] ECR I-6227, paragraph 22).

The right of placing on the market could not be affected in the case of a transit.

Finally, in the *Montex* case referred to by the German Supreme Court, the ECJ unequivocally affirmed its previous case law, including *Class*, that 'mere' transit did not constitute trademark infringement. In that case, goods were seized at the German-Polish border which were to be transported through German territory to Ireland. In Ireland, the use of the DIESEL trademark could not be prohibited by the proprietor of that mark in Germany. The referred questions were:

> (1) Does a registered trade mark grant its proprietor the right to prohibit the transit of goods with the sign?
>
> (2) If the answer is in the affirmative: may a particular assessment be based on the fact that the sign enjoys no protection in the country of destination?
>
> (3) If the answer to (1) is in the affirmative and irrespective of the answer to (2), is a distinction to be drawn according to whether the article whose destination is a Member State comes from a Member State, an associated State or a third country? Is it relevant in this regard whether the article has been produced in the country of origin lawfully or in infringement of a right to a sign existing there held by the trade-mark proprietor?

The Court concluded as regards the first two questions:[31]

> [T]he answer to the first and second questions must be that Article 5(1) and (3) of Directive 89/104 is to be interpreted as meaning that the proprietor of a trade mark can prohibit the transit through a Member State in which that mark is protected (the Federal Republic of Germany in the present case) of goods bearing the trade mark and placed under the external transit procedure, whose destination is another Member State where the mark is not so protected (Ireland in the present case), only if those goods are subject to the act of a third party while they are placed under the external transit procedure which necessarily entails their being put on the market in that Member State of transit.

The Court's case law is truly 'severe' – transactions in a customs-free zone do not constitute infringement unless they necessarily involve a putting on the market in 'free circulation' (*Class*); transit does not constitute infringement regardless of whether there is infringement in the country of origin or in the country of destina-

[31] Case C-281/05, *Montex v. Diesel*, [2006] ECR I-10881, para. 27.

tion, and regardless of whether the country of origin or the country of destination is a Member State of the European Union (*Rioglass*, *Montex*). The scope of trademark protection is reduced to the 'first marketing' as Community goods. This reduction in protection will make it extremely difficult to enforce intellectual property rights effectively when multi-state transactions are involved and the goods 'move' through a country or jurisdiction where protection exists and where the goods are actually available to be seized.

We have previously explained that in our view, *Class* has been wrongly decided, because the right holder should be able to prosecute acts ('*Benutzungshandlungen*') taking place within the territory of the jurisdiction where the right is protected, and that the customs status of such goods should be irrelevant. We agree with *Rioglass* and *Montex* to the extent that we deal with 'mere' transit, which should be 'exempt' from infringement regardless of the customs status of the goods. We disagree with these cases to the extent that they consider a risk of 'diversion' into the channels of commerce in the transit jurisdiction insufficient to intervene, requiring that whatever happens must *necessarily* lead to such entry, and put the burden of proof on the right holder.

6. Infringing Goods in Transit

We will now have a look at situations where the goods infringe in the country of origin or in the country of destination, or in both countries, and see how or whether the situation changes when cases of product piracy (counterfeit or pirated goods) are involved.

If the goods infringe intellectual property rights in the country of origin or if they would infringe in the country of destination, and also would infringe in the country of transit, it is difficult to understand or explain why the right holder should not be able to seize these goods. Why should transit be privileged when the products never were free from intellectual property right claims in their country of origin or in their country of destination? It would seem equitable that in such a situation the interests of the right holder should prevail. It should not require too much imagination to develop the notion of transborder intellectual property right infringements, where those involved in the country of origin and the country of destination as well as those organizing the transit are liable jointly, as actors or co-actors, as instigators, as abetters.[32] This 'unitary' approach to 'international infringement' does however present difficulties, as we recognize, of conciliation with the territoriality principle.[33] Obviously, if such an approach is rejected, the right holder must pursue his remedies in the country of origin or of destination.

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[32] This is the position of Swiss case law, *see* Swiss Supreme Court, July 6, 1989, 1991 GRUR 227, 228 – *Doxycyclin II*; STAUDER, *supra* note 1, at 143 *et seq.*; *see* also Court of Appeal (Hanseatisches Oberlandesgericht) Hamburg, *supra* note 26.

[33] For a 'scent' of such an international unitary approach, *see* German Federal Supreme Court (Bundesgerichtshof, BGH) of July 24, 1957, 1958 GRUR 198, 197 – *Zeiss* (one of the many post-World War II cases seeking to solve intellectual property right issues having arisen from the division of Germany).

The ECJ rejected such an approach – against the opinion of the Commission and the German government – in the *Montex* judgment, where the third question referred by the German Supreme Court[34] asked for the effect of an infringement in the country of origin. The Court held:

> [I]t is in principle irrelevant whether … those goods have been manufactured in the country of origin lawfully or in infringement of the existing trade mark rights of the proprietor in that country.[35]

The explanation is as brief as it is unconvincing:

> As has already been held in paragraph 27 above, the proprietor of a trade mark can prohibit the transit through a Member State in which that mark is protected (the Federal Republic of Germany in the present case) of goods bearing the trade mark and placed under the external transit procedure with another Member State as their destination where the mark is not so protected (Ireland in the present case), only if those goods are subject to the act of a third party while they are placed under the external transit procedure which necessarily entails their being put on the market in that transit Member State. Whether the manufacture of the goods in issue was lawful or unlawful is in that respect irrelevant.[36]

Thus, there is no hope to expect anything more from the courts in Europe.

Do we have a different answer in regard to counterfeit and pirated goods, which are universally perceived as a threat to legitimate trade? One would expect so, the more so as intervention with regard to other 'dangerous' goods, such as drugs or weapons (or endangered species) takes place *ex officio* and – naturally – issues like domestic marketing do not arise.

At the international level, trade in counterfeit and pirated goods triggered the very adoption of the TRIPS Agreement. We will not go into the TRIPS rules regarding enforcement, because they do not add much to our analysis, but will rather limit ourselves to the conclusion that the Agreement does not overcome the principle of territoriality.[37]

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[34] The absence of infringement in the country of destination was already dealt with in the previous answer. As regards to protection in the country of origin, the question was the following: '(3) If the answer to (1) is in the affirmative and irrespective of the answer to (2), is a distinction to be drawn according to whether the article whose destination is a Member State comes from a Member State, an associated State or a third country? Is it relevant in this regard whether the article has been produced in the country of origin lawfully or in infringement of a right to a sign existing there held by the trade-mark proprietor?'

[35] Case C-281/05, *Montex v. Diesel*, [2006] ECR I-10881, para. 41.

[36] *Id.*, at para. 34. If one reduces the issue to a first placing on the market in the country of protection, this answer may be obvious. But this is not the kind of reasoned answer one would hope to get from the highest court in the Union.

[37] We should add that the Advocate General in his Opinion in the *Class* case refers (in para. 36) to Article 50(1)(a) of the TRIPS Agreement which requires national judicial authorities to have the competence 'to order prompt an effective provisional measures … to prevent an infringement of any intellectual property right from occurring, and in particular to prevent the entry into the channels of commerce in their jurisdiction of goods, including imported goods immediately after customs clearance.' The TRIPS Agreement is however not 'mandatory', but permits Members to grant more extensive protection.

At the national level, Germany was among the first to adopt rules for combating product piracy; and border measures have always belonged to Germany's trademark law, explicitly including transit cases. The Paris Convention and more recently the TRIPS Agreement similarly have border measures in mind.

In the EU, the Council already in 1994 adopted its first comprehensive regulation on border measures concerning counterfeit or pirated goods[38] that enter Community territory for free circulation, are destined for export or re-export or are found under customs supervision, for example in a free zone or in a free warehouse.[39] This 1994 Regulation has in the meantime been replaced by an even more comprehensive Regulation which requires border measures also when the goods are infringing patents.[40]

The Regulation provides for customs seizure of goods suspected of infringing intellectual property rights in the Member State of importation, including infringement of Community rights such as trademarks, designs, geographical indications and plant variety rights, and obviously so prior to their clearance for free circulation. The importer may ask for a release of these goods, claiming for example that they do not infringe or are imported with the consent of the right holder. In such a case the right holder must bring an infringement action (preliminary or main action) within a very short time (20 working days) to request the seizure to continue and to judge on the infringement. Also, police or prosecution authorities may intervene.

In view of its explicit language, customs intervention is mandated even in transit or customs-free zones[41] situations.

In a case referred to the ECJ by the Austrian Supreme Court in 1998 goods were seized on their transit through Austria, the consignor being an Indonesian company, and the consignee a Polish company. The question was whether the fact that neither the country of origin nor country of destination were EU Member States was of relevance. The Court concluded:[42]

> Article 1 of Council Regulation (EC) No 3295/94 of 22 December 1994 laying down measures to prohibit the release for free circulation, export, re-export or entry for a suspensive procedure of counterfeit and pirated goods is to be interpreted as being

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[38] Counterfeit goods are goods which bear a trademark that is identical with or indistinguishable in its essential aspects from a protected mark. 'Grey market' goods are not subject to customs seizure. Pirated goods are goods infringing copyrights or neighboring rights.

[39] Council Regulation (EC) No. 3295/94 of December 22, 1994 laying down measures concerning the entry into the Community and the export and re-export from the Community of goods infringing certain intellectual property rights, [1994] OJ L 341, p. 8. The ECJ held that this Regulation was properly based on (what was then) Article 113 of the EC Treaty:. *see* also Case C-383/98, *The Polo/Lauren Co. v. PT. Dwidua Langgeng Pratama International Freight Forwarders*, [2000] ECR I-2519.

[40] Council Regulation (EC) No. 1383/2003 of 22 July 2003 concerning customs action against goods suspected infringing certain intellectual property rights and the measures to be taken against goods found to have infringed such rights, [2003] OJ L 196, p. 7.

[41] Custom-free zones had been added in 1999 by Council Regulation (EC) No. 241/1999 of January 25, 1999, [1999] OJ L 27, p. 1.

[42] Case C-383/98, *The Polo/Lauren Co. v. PT. Dwidua Langgeng Pratama International Freight Forwarders,* [2000] ECR I-2519.

applicable where goods of the type specified in Regulation No 3295/94, imported from a non-member country, are, in the course of their transit to another non-member country, temporarily detained in a Member State by the customs authorities of that State on the basis of that regulation and at the request of the company which holds rights in respect of those goods which it claims have been infringed and whose registered office is in a non-member country.

The Court rejected the argument made by the German government that the customs seizure should not apply:

26 According to Article 1(1)(a) of the Regulation, the latter applies where counterfeit or pirated goods are found when checks are made on goods placed under a suspensive procedure within the meaning of Article 84(1)(a) of the Community Customs Code. Under this latter provision, the term '[suspensive] procedure designates, *inter alia*, external transit, that is to say, a customs procedure allowing the movement of non-Community goods from one point to another within the customs territory of the Community without those goods being subject to import duties or other charges under the Community Customs Code.

27 The Regulation is thus expressly designed to apply to goods passing through Community territory from a non-member country destined for another non-member country. It does not matter in this regard whether the holder of the right or those entitled under him have their registered office in a Member State or outside the Community.

And the Court added, in rejecting arguments that the Regulation was invalid because it did not have a sufficient relation to intra-Community trade:

31 It must first be borne in mind that the Regulation is based on Article 113 of the Treaty, which concerns the common commercial policy.

32 In this regard, certain provisions on intellectual property affecting cross-border trade constitute an essential element in international trade legislation. When requested to rule on the question whether or not the Community had exclusive jurisdiction to conclude the Agreement concerning Trade-Related Aspects of Intellectual Property Rights, including Trade in Counterfeit Goods (known as "the TRIPs Agreement"), annexed to the agreement establishing the World Trade Organisation, the Court held, in Opinion 1/94 of 15 November 1994, [1994] ECR I-5267, paragraph 55, that measures at border crossing points intended to enforce intellectual property rights could be adopted autonomously by the Community institutions on the basis of Article 113 of the Treaty.

33 So, the Community was empowered, under Article 113 of the Treaty, to introduce common rules for stopping counterfeit goods under a suspensive customs procedure such as the external transit procedure.

34 After all, the external transit of non-Community goods is not completely devoid of effect on the internal market. It is, in fact, based on a legal fiction. Goods placed under this procedure are subject neither to the corresponding import duties nor to the other measures of commercial policy; it is as if they had not entered Community territory. In reality, they are imported from a non-member country and pass through one or more Member States before being exported to another non-member country. This operation is all the more liable to have a direct effect on the internal market as there is a risk that counterfeit goods placed under the external transit procedure may be fraudulently brought on to the Community market, as several Governments pointed out in their written observations and at the hearing.

> 35 In view of the foregoing considerations, it must be held that consideration of the questions raised has revealed no factor of such a kind as to affect the validity of the Regulation.

We can only agree.[43]

Four years later, in 2002 the Landesgericht Eisenstadt, a regional court in Austria, referred questions in a similar case, relating to seizures of goods carried out at the instance of Montres Rolex, Tommy Hilfinger, La Chemise Lacoste, Guccio Gucci, and The Gap, seeking an answer whether the customs seizure was applicable with regard to transit goods in criminal proceedings when there was no penal sanction under national trademark law:

> Is a provision of national law, *in casu* Paragraph 60(1) and (2) of the MSchG, in conjunction with Paragraph 10a thereof, which may be interpreted as meaning that the mere transit of goods manufactured/distributed in contravention of provisions of the law on trademarks is not punishable under criminal law, contrary to Article 2 of Council Regulation (EC) No 3295/94 of 22 December 1994 laying down measures to prohibit the release for free circulation, export, re-export or entry for a suspensive procedure of counterfeit and pirated goods, as amended by Council Regulation (EC) No 241/1999 of 25 January 1999?

The Court was similarly explicit as in the Polo/Lauren case:

> Articles 2 and 11 of Council Regulation (EC) No 3295/94 of 22 December 1994 laying down measures concerning the entry into the Community and the export and re-export from the Community of goods infringing certain intellectual property rights, as amended by Council Regulation (EC) No 241/1999 of 25 January 1999, are applicable to situations in which goods in transit between two countries not belonging to the European Community are temporarily detained in a Member State by the customs authorities of that State. [44]

Not surprisingly, these two judgments are difficult if not impossible to reconcile with the *Rioglass*, *Class* and with *Montex* judgments because of the necessary link of the customs seizure with the infringement rules of national or Community intellectual property law, which according to these judgments do not cover transit and customs-free warehousing.

In the *Montex* case an argument was made by the trademark proprietor (Diesel) that refusing intervention in transit cases was incompatible with the Court's interpretation of the customs rules. The *Montex* judgment[45] dealt with this argument as follows:

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[43] Indeed, it was concluded at the time by some authors that the Court had thereby implicitly accepted that transit amounted to trademark infringement, *see* SACK, Die Durchfuhr im europäischen Markenrecht nach der EuGH-Entscheidung vom 6.4.2000 zur ProduktpiraterieVO (EG) Nr. 3295/94, 2000 Wettbewerb in Recht und Praxis (WRP) 702.

[44] Case C-60/02, *X* ('*Rolex and others*'.), [2004] ECR I-651. Here, we will not deal with the interesting issues of whether some conduct must be subject to criminal sanctions.

[45] Case C-281/05, *Montex v. Diesel*, [2006] ECR I-10881.

> 35 Contrary to Diesel's assertions, such an interpretation of Article 5 of Directive 89/104 is not affected by the judgment in Case C-60/02 *X* [2004] ECR I-651, regarding, in particular, the interpretation of Articles 2 and 11 of Regulation No 3295/94.
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> 36 In that judgment, the Court pointed out, in paragraph 54, that Article 1 of Regulation No 3295/94 is to be interpreted as being applicable where goods imported from a non-Member State, are, in the course of their transit to another non-Member State, temporarily detained in a Member State by the customs authorities of this latter State on the basis of that regulation and at the request of the company which holds the rights claimed to have been infringed (see also *Polo* v *Lauren*, paragraphs 26 and 27).
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> 37 In that regard, the Court notes that Article 1 of Regulation No 3295/94 lays down, first, the conditions under which the customs authorities are to take action where goods suspected of being counterfeit goods are, in particular, found in the course of checks on goods under customs supervision within the meaning of Article 37 of the Customs Code, placed under a suspensive procedure within the meaning of Article 84(1)(a) of that Code, re-exported subject to notification or placed in a free zone or free warehouse under Article 166 thereof.
>
> 38 Second, Article 1 of Regulation No 3295/94 lays down the measures which can be taken by the competent customs authorities with regard to those goods.
>
> 39 Third, the second and third recitals of that regulation, reproduced in paragraph 4 above, refer expressly to the marketing of counterfeit goods or the placing of such goods on the market, and to the need to prohibit the release of such goods for free circulation in the Community.
>
> 40 It follows that none of the provisions of Regulation No 3295/94 introduces a new criterion for the purposes of ascertaining the existence of an infringement of trade mark law or to determine whether there is a use of the mark liable to be prohibited because it infringes that law.

It should be clear to an attentive observer that the Court's attempt to reconcile these contradictory results has not been successful.[46]

We conclude that in cases of transit of goods from countries with protection or to countries with protection, a proper interpretation of intellectual property should

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[46] The Court did not refer to the following recitals in the 2003 version of the Customs Seizure Regulation:

(2) The making of counterfeit and pirated goods, and indeed all goods infringing intellectual property rights, does considerable damage to law-abiding manufacturers and traders and to right-holders, as well as deceiving and in some cases endangering the health and safety of consumers. Such goods should, in so far as is possible, be kept off the market and measures adopted to deal effectively with this unlawful activity without impeding the freedom of legitimate trade. This objective is consistent with efforts under way at international level.

(3) In cases where counterfeit goods, pirated goods and, more generally, goods infringing an intellectual property right originate in or come from third countries, their introduction into the Community customs territory, including their transhipment, release for free circulation in the Community, placing under a suspensive procedure and placing in a free zone or warehouse, should be prohibited and a procedure set up to enable the customs authorities to enforce this prohibition as effectively as possible.

(4) Customs authorities should also be able to take action against counterfeit goods, pirated goods and goods infringing certain intellectual property rights which are in the process of being exported, re-exported or leaving the Community customs territory.'

lead to considering the transit an act of infringement. This would harmonize the interpretation of the customs intervention rules with intellectual property law.

In view of the recent Grand Chamber judgment in *Class* and the subsequent ruling in *Montex,* it seems unlikely that this result can be achieved without reviewing and amending the applicable legislation.[47]

7. Pursuing goods in transit with civil actions in the country of transit

When we accept, as it seems that we must under the current European case law, that both 'mere transit' – which we also consider to be non-infringing – and transit from or to countries with protection do not amount to infringement of trademarks, patents etc., we must still answer the question whether it will be possible to bring an action for infringement of the intellectual property right before a court in the transit country, claiming infringement in the country of origin or in the country of destination.

We must consider several situations, which have in common that it is not relevant whether or not protection exists in the country of transit where the action is brought:

First, we assume third-country origin and third-country destination, in which case the infringement would relate to a third country intellectual property right.

Second, we assume third-country origin and Member State destination, or the reverse. The protection in the Member State may be national or Community-wide.

Third, we assume Member State origin and Member State destination. As in the previous situation, the protection in the Member State may be national or Community-wide.

In the first case, the infringement is of an intellectual property right which exists outside of the European Union, in the country of origin or in the country of destination. Under Regulation 44/2001, the so-called Brussels I Regulation,[48] the successor to the 1968 Brussels Convention, a European Union civil court will have international jurisdiction over the defendant or defendants for their acts (or contributory acts), wherever committed, in the Member State where the defendant is domiciled.[49]

If there is no domicile in the EU, the national provisions of the so-called exorbitant jurisdiction are not excluded by the Brussels I Regulation,[50] and the courts of

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[47] For an extensive review of the Montex judgment and its consequences, *see* HEINZE/HEINZE, Transit als Markenverletzung – Schlusswort des EuGH in der Entscheidung 'Montex/Diesel', 2007 GRUR 740.

[48] *See supra* note 2.

[49] 'Domicile' is defined in Article 60 of Regulation 44/2001. For legal entities – primary subjects of intellectual property litigation – Article 60 (1) provides as follows:

1. For the purposes of this Regulation, a company or other legal person or association of natural or legal persons is domiciled at the place where it has its:
   (a) statutory seat, or
   (b) central administration, or
   (c) principal place of business.

[50] Article 4(2) Brussels I Regulation.

the Member States are free to exercise jurisdiction in accordance with their national rules. For example, if the case should arise in Germany, the claimant may bring the case before the court in the district 'where the object claimed is found.'[51] The court in that district, for example the court having jurisdiction over a free warehouse or some other free zone, may be called upon to judge the (foreign) infringement.

The claimant (right holder) may, if the defendant has a Community domicile, also invoke Article 5 No. 3 of the Brussels I Regulation, *i.e.* the jurisdiction of the courts of the Member State where an 'unlawful act' (tort) has been committed. For this jurisdiction to apply, the court would have to consider that the 'action' of transit is part of the 'acts' of infringement in the country of destination, such as prohibited 'importation' into that country, or in the country of origin, such as prohibited 'exportation' from that country.

If we followed the *Montex* judgment to its extremes, we would well have to conclude that no 'tort' is committed in the transit country. But perhaps it can be argued that a broader approach to the 'place of the wrong' under Article 5 No 3 is not precluded, since we are judging multi-state acts as one homogenous (uniform, common) act of infringement relating to an infringement in the country of origin or in the country of destination, or in both countries.

Also, for the case to succeed in a Community court, the court, in line with the abovementioned principles of the Brussels I Regulation, will have to accept jurisdiction over acts of infringement of intellectual property rights protected in third countries. There is no reason to assume that such jurisdiction will not be accepted. When the defendant asserts the invalidity of the third-country intellectual property right, we are in the middle of current debate about international intellectual property infringement litigation. As a general proposition, we assume that a European court will not assume jurisdiction over the validity of an intellectual property right protected by registration in a third country, but it may well accept 'incidental' jurisdiction; and what the courts may or will do with unregistered intellectual property rights is difficult to predict.

In the second case, when we have a Member State as country of destination, or as country of origin, the issues are similar, except that the court will have no difficulty in accepting jurisdiction over the subject matter of an infringement in the country of origin or of destination. One would assume, however, that in such a case the right holder can – and will – normally sue in the country of destination or origin, provided that protection exists there. If the case is brought elsewhere, such as in the transit country, for example because of the domicile of the defendant, and the defense is raised that the claimant's rights are invalid, Article 22 No. 4 of the Brussels I Regulation as interpreted by the ECJ in the *GAT/LuK* judgment[52] precludes

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[51] Section 23 of the German Code of Civil Procedure (Zivilprozessordnung, ZPO); *see* ZÖLLER, Zivilprozessordnung, § 23, note 15 (26th ed. 2007).

[52] Case C-4/03, *GAT v. LuK*, [2006] ECR I-6509; *see* LUGINBÜHL/STAUDER, Summary of Arguments on the ECJ Decisions GAT v. LuK and Roche Nederland BV et al. v. Primus and Goldenberg, in BAKARDJIEVA-ENGELBREKT/NORDELL ET AL.(eds.), Festsrift till Marianne Levin, 599 *et seq.* (2008).

the court to assess the validity. It is as yet unclear whether that judgment, which has not remained without criticism, will be interpreted strictly or broadly. For example, in our view the court, even though without power to judge the validity, is not without jurisdiction to judge the infringement. Further, when the case arises in preliminary proceedings in accordance with Article 31 of the Brussels-I-Regulation, the jurisdiction of the court should not be affected by a defense of invalidity anyway. As we are dealing with third-country infringement, it is also arguably that the 'rule' of the GAT/LuK judgment should not apply.[53]

When the infringed right is a Community-wide right, such as a Community trademark or design, the jurisdictional rules of the Community Trade Mark Regulation (and the equivalent rules in the later Community Design Regulation) apply. Under these rules, the acts of infringement in the country of destination or in the country of origin will be acts of infringement of a unitary right which the right holder is entitled to prohibit Community-wide if he is litigating in a court with Community-wide jurisdiction. Such courts, Community trade mark and design courts, exist in each Member State, and their territorial scope of competence is pan-European when the case is brought in the Member State where the defendant has its domicile, or, subsidiarily, an establishment; failing both, the courts where the plaintiff has its domicile (or establishment) have such broad competence, and if neither claimant nor defendant has domicile or establishment in the European Union, the courts at the seat of the Harmonization Office (Alicante, Spain), have such jurisdiction. Finally, the suit may also be brought in the Member State where infringing acts have taken place or are threatened, but then the court has jurisdiction only over acts of infringement in the Member State where the court is established.

In our cases a claimant will usually have no difficulty in pursuing infringements when the destination is a Member State where protection exists, either nationally or via a Community-wide right. Difficulties arise, when the case is one where no protection exists in the country of destination and the country of origin is a third country. In these situations, the solutions (or problems) discussed previously with regard to third-country rights apply.

In the third case, the goods come from one Member State and move through the territory of another Member State to a third Member State. Jurisdiction over the defendant in the transit country arises under the Brussels I Regulation in case of national rights. The suit may be brought in the Member State with the defendant's domicile, or in the Member State with acts of infringement. The situation is similar to that in the first case, except that issues of assuming jurisdiction over third-country activities do not arise. Where the right is a Community trademark or design, there is an infringement throughout, both in the country of origin and in the country of destination, and injunctive relief will be available Community-wide if the court has Community-wide jurisdiction.

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[53] *Cf.* also GRABINSKI, Cross-border Injunctions in Patent Litigations Following the ECJ Judgment in GAT v. LuK – Life after Death?, in this volume.

8. Conclusions

While we agree that mere transit of goods through a country where intellectual property rights exist does not amount to infringement, the balance should change in favor of the right holder when protection exists in the country of origin or in the country of destination or when we are dealing with piracy and counterfeiting. In such a case the transit should be considered as part of an international tort of intellectual property right infringement, and the goods should be subject to seizure and destruction where they are found. The European Court of Justice case law on these points is regrettably restrictive. Imagination is required to develop the law further. Furthermore, corrective legislation seems to be necessary.

The Spanish Patent System: Future Outlook

Alberto Bercovitz

1. The 1986 Patent Act

As is well known, I made the preliminary draft that led to the Patent Act of March 20, 1986, which is still in force at present. Now, more than 25 years later (the draft was delivered in 1981), we must look at the future outlook of the Spanish patent system.

I have to admit that presently it is much more difficult to deal with the future of the Spanish patent system than it was when I prepared the preliminary draft in 1981. Indeed, the criterion I had to use was clear when preparing the preliminary draft. At the time, Spain was negotiating its accession to the European Economic Community so, in the subject of patents and in other matters of law, it was necessary to adapt Spanish legislation to Community legislation as far as possible, which included the Community's legal provisions in force at the time.

To adapt the Spanish patent system to the Community law, Spain had to adapt to the European Patent Convention and to the Luxembourg Project for a Convention on the Community Patent. This was done in the preliminary draft, which then led to the Patent Law. The articles of both the European Patent Convention and the Project for the Convention on the Community Patent were reproduced word for word. With regard to the rules that were not copied from those two legal texts, we made sure that they were compatible with both conventions and that they conformed to the interests that had to be protected at that time in Spain.

The result of the Patent Act of March 20, 1986 was reasonable. It conformed to the requirements of Spain's accession to the European Economic Community and, being the first Law that was drafted to bring industrial property up to date in Spain, it has maintained its original text so far, with only very specific amendments, including the transposition of the Directive on the legal protection of biotechnological inventions, the amendments as a result of the transposition of the Directive on the means of enforcing intellectual property rights, the changes due to the enactment of the new Civil Procedure Law of January 7, 2000, and the repeal of Article 128 of the Patent Law, which envisaged the possibility of civil servants from the Spanish Patent and Trademark Office being designated as legal experts and of the mandatory report from that Office being used in legal proceedings to annul patents.

The Spanish Patent Act was the first of its kind in legal proceedings in Spain in terms of the other types of industrial property laws.

2. The New Outlook for Patents

Twenty years after the enactment of the 1986 Act, the outlook for patents has changed considerably. The main feature is that most of the patent applications are not Spanish but European and Patent Cooperation Treaty (PCT) applications. In 2006, there were 145,375 PCT and Euro-PCT applications, 56,350 applications for European patents, and only 3,352 applications for Spanish patents.

That disproportion can also be seen in the number of patents granted: 21,175 for European patents compared with 2,107 for Spanish patents. This means that the actions of the Spanish legislature are very limited in the issues regulated by the European Patent Convention.

At an international level, the PCT has grown extraordinarily, resulting in many applications being filed, namely the Euro-PCT. The agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) also imposes substantive rules for patents in the issues that are not regulated by the European Patent Convention or the PCT, and those rules must be respected in Spain. This means that the actions of the Spanish legislature are very limited since most of the patent applications are processed by the European Office, and the regime for patents after being granted must respect the TRIPS. Moreover, apart from the fact that the Spanish authorities cannot act with total freedom since they have to conform to the international conventions, they also have to tackle the existing problems, which are currently being discussed at an international level since they may lead to new international agreements that may have a serious effect on the patent regime applicable in Spain.

Indeed, one of the signs of the so-called globalization of the economy is the claim for a worldwide patent drafted in a single language and with a single jurisdiction so that it can be judged at an international level, or at least at a regional European level, on patent-related matters. Along with that existing idea, every time reforms are introduced in the existing international agreements, some rule in that direction is included. For example, Rule 4.9(a) of the PCT Regulations, which entered into force on October 12, 2006, states as follows: '(a) The filing of a request shall constitute: (i) the designation of all Contracting States that are bound by the Treaty on the international filing date.' Moreover, Article 22 of the PCT states that the applicant must furnish a copy of the international application to each designated Office no later than at the expiration of 30 months from the priority date. These regulations can obviously be criticised: they create enormous legal uncertainty for third parties as they will have to wait up to thirty months in order to know whether or not the invention addressed by the international application will be protected in a specific country.

Those changes show the 'vicious circle' of the international bodies' actions. The international bodies with regulatory power or with at least the power to propose amendments to regulations or to the international application of the Treaties have to finance themselves. With that aim, they have to boost the number of protection applications, so they are very receptive to the applications from their 'clientele', – i.e., mainly the big multinationals which file the largest number of applications for IP protection.

Moreover, because of the complementarity between the application systems for international and national patent protection, once some advantageous provisions for the applicants are included in the international rules, it seems necessary to also include those advantages in the national systems so as not to negatively affect their competitiveness with respect to the international systems. This occurs, for example, with the introduction of a written opinion with a detailed study of the requirements for patentatibility carried out at the same time as the report on international search, as established in Rule 43bis.1 of the PCT Regulations, which encourages the introduction of that rule in the national patent-granting procedures.

This means that the international conventions limit the national authorities' freedom of action and the competition between the international and national procedures for patent applications encourages national legislators to include the changes established at an international level that are favorable to the applicants. Therefore, it is necessary for the national authorities to actively participate in the international forums in order to prevent, as far as possible, the adoption of measures that may directly or indirectly affect the patent system applicable in Spain which are detrimental to Spanish patent law.

The Spanish authorities have participated actively at the European Community level in an effective way, especially in relation to the Community patent projects and to the patent jurisdiction agreement.

3. The Language and Jurisdiction Problem

In Europe, the first problem is the use of language in the documents of the granted patents, since the need to translate the European patent specification and claims into the various languages means an extraordinary expense for the applicants. Those expenses could be eliminated if a single language, which would obviously be English, is declared to be sufficient for protection in all those countries.

But that idea should not be accepted. It is unrealistic to think that small and medium-sized enterprises (SMEs) can handle a foreign language in general, such as English, especially if the document uses complex technical language. Moreover, if the patent documents actually contain a prohibition against all third parties, it appears that, based on Constitutional requirements, prohibitions cannot be imposed without them being stated in the official language of each country. Additionally, if the effectiveness of the patent documents is imposed in a foreign language, thus eliminating the requirement to translate them into the country's language, the translation costs would then be transferred. Indeed, the patent owner would save on the expenses of having to translate the patent documents into other languages but that cost would be passed on to all the third parties, especially the SMEs, which would have to commission the translation into their own language on their own account and at their expense.

If a single language is imposed on patent issues, the single reliable translation entrusted by the applicant would finally be replaced by many private translations carried out by those whose activity may be affected by the patent and who must therefore know the content in their own language. Eliminating the single translation

paid for by the patent applicant does not seem fair or reasonable since he or she will enjoy the exclusive right; the third parties will have to translate a patent document at their own cost. On the other hand, from a theoretical standpoint, we must remember that the description and dissemination of an invention (so that the invention can be executed by a normal expert on the matter) is what justifies the patent protection. Obviously, that consideration, which is basic in patent issues, is not taken into account if the description is written in a language that is not sufficiently well known by the experts on the matter in a specific country.

Another important reason is the fundamental function of the documents collection of the Spanish Office, *i.e.* the dissemination of the technology disclosed in the patents that have been granted. In order to meet the requirement of fostering the dissemination of technology, especially for its use when it becomes part of the public domain, the document collection has to be in the country's language.

Remember that the patent documents drafted in Spanish not only are of interest to Spaniards but also play a major role as a documents collection that can be accessed and managed by all Spanish-speaking people, i.e. most of the inhabitants of Central and South America.

Another issue currently being discussed is the creation of a centralised European jurisdiction to deal with patent lawsuits. This is not acceptable because, if implemented, the SMEs would be especially defenceless if they have to go to courts outside Spain and use a procedure in a foreign language.

4. Maintaining the Spanish Patent System

In view of that international outlook and as a result of the small number of national applications for Spanish patents compared with European ones, the first issue is to determine whether it makes sense to maintain the national patent system. In my opinion, it does make sense.

Firstly, a Spanish Patent Act is essential at present since it currently regulates the patents that have been granted by the European Office. Moreover, many companies voluntarily restrict their actions to a limited market like the Spanish one. Furthermore, the applications for national patents are very important in order to ensure nationwide priority since the companies file their applications at the nearest body and in the same language, *i.e.* the Spanish Patent and Trademark Office.

Additionally, the Spanish national system should be maintained because it carries out other major functions: it has a collection of technology documents in Spanish accessible to the general public; it fosters the use of public domain technology; and it provides training to experts so that they can search and handle the technology documentation when drafting reports on the state of the art or on the patentability test. Those experts often change to work for private companies, which is desirable so that the companies have experts on the matter.

Therefore, at present, it does make sense to maintain a national Spanish patent system. Based on that premise, we must now ask what is the best legal regulation for that patent-granting system.

5. The Patentability Examination

The Spanish Patent Act states that all applications require a search into the state of the art and establishes the possibility of the applicants requesting an optional prior patentability examination for their applications. At present, there are discussions about whether the Spanish Patent Act should include a written opinion on the patentability together with the search into the state of the art without it being published. That opinion would be preliminary and non-binding.

That proposal copies Rule 43 bis of the PCT and of the Extended European Search Report based on new Rule 44a (1) of the European Patent Convention. It also reinvents the concept of the prior examination, which used to happen, for example, in the German legislation before the 1967 Law, with the main difference being that in the present proposal, the written opinion would be non-binding for the purposes of the test prior to the patent concession.

To focus on the patent granting procedures, it is necessary to refer to the history of the current granting procedures. In Germany, until the Law of September 4, 1967, (Patent Act 1968) patents were granted with a prior patentability examination that was carried out immediately. There was no difference between the report on the state of the art and the prior examination.

The German Patent Act 1968 changed that system. The prior patentability examination, carried out automatically in the procedure, was eliminated and the law established that the examination had to be requested within seven years of the patent application. Additionally, applicants could request the Patent Office to provide information beforehand about publications to be considered for the patentability.

The patent-granting system was changed in Germany because there was a backlog of 271,000 pending patent applications in 1966, which meant that the patent-granting procedure lasted about five years. Around the same time, in France, the Law of January 2, 1968 established that an 'avis documentaire' be drafted for submitted patent applications, *i.e.* a report on the elements of the state of the art that could affect the invention novelty or activity of the object of the patent application.

The European Patent Convention establishes a patent-granting system that combines the search into the state of the art (France) and a deferred patentability examination (Germany), making the examination dependent on the applicant's request. This means that the separation between the search into the state of the art and the patentability examination is not essential; they can be carried out jointly as it used to be done in the prior granting procedure with automatic examination.

In short, that is the aim of the non-binding written opinion drafted for the PCT and the European Patent Convention.

The prior examination should be re-established without separating the search report and the prior examination. Based on those details, the question is how those considerations will affect the current Spanish patent system which, in short, is somewhat marginalized.

Imposing a prior patentability examination in the patent-granting procedure in Spain does not seem viable. That possibility would most likely be rejected by the users, who would flee towards long-standing examination systems. From my view-

point, competition should be established within a global framework between the various patent offices in the future so that they can encourage applicants to make their first application. To act within that competitive framework, they would have to provide the best offering for patent application procedures. Therefore, legally imposing a prior examination is not viable.

The Spanish Patent Office should be the first option for filing applications in Spanish. To do this, it should provide the best service with the fastest and cheapest test, in which several options could be provided for the applicants. The applicant could request only the search into the state of the art, or he or she could request the search, followed by the examination. Alternatively, the applicants could request an 'express examination', *i.e.* a test without making a distinction between the search report and the examination, which should be conducted in a very short time (*e.g.,* five months of the first resolution) and should be a high quality examination carried out at a reasonable price.

Among other things, a high quality denotes that the requirements for a finding of inventive activity should be very demanding. The price would have to be very competitive. It makes no sense for the Spanish Patent and Trademark Office to always have a budget surplus; that surplus should be used to reduce rates and compete in prices. In short, the proposal is that the Spanish patent system should establish options for services and quality, with very tight prices, marketing them as it deems fit. This competitive approach should also be extended to the searches into the state of the art which are at present carried out pursuant to the existing legal requirements.

Additionally, a national patent system should be maintained in Spain because its activity should focus on encouraging SMEs to use public domain technology. It already carries out some activity towards that goal but it seems clear that those actions should be intensified through more diverse means: sector forums, informal meetings with company heads, subsidies to SMEs for using public domain technology, etc.

On the other hand, there are certain aspects of the legal regulations of the Spanish patent system which should be subjected to futher research in order to determine whether they are useful in practice or whether they are in need of amendment. It would be desirable to research the practical application of the employee inventions as regulated in the Patent Act and perhaps include incentives for 'technical perfection proposals'.

Additional research that should be carried out relates to the system of compulsory licences and licences of right in order to consider whether measures could be adopted to encourage the use of the latter. The Spanish Patent Office should also organize a system that enables its experts to participate as legal experts when this is requested by a court while regulating those actions pragmatically and with the appropriate economic compensation.

Another problem, which is pressing not only under Spanish Patent Law, is that necessary measures have to be studied in order to prevent a deluge of lawsuits as a result of successive patents for perfecting or further developing the same invention. For purely economic reasons, an SME is unlikely to be able to face successive law-

suits from a large company that has been perfecting or developing the same invention and protected it with successive patents.

Finally, another suggestion that may be of practical importance is that it would be very useful for the Spanish Patent and Trademark Office to research and make public the average royalties in the licence contracts carried out by each sector. In that way it would be easier to quantify the damages caused by patent infringement in many cases, *i.e.* when the patent owner calculates the compensation that he or she is entitle to based on the royalty that the offender would have had to pay for their action to be legal.

6. The Utility Models

Studying the utility models regulated in the Patent Act is of special interest. According to Spanish law, utility models are used to protect small inventions that 'confer on an object a form, structure or constitution that results in an appreciable improvement in its use or manufacture'. (Article 143 of the Patent Act).

Unlike in case of patents, the state of the art against which the novelty and the inventive activity of the inventions protected as utility model are to be judged is a state of national art, made up of the knowledge disseminated in Spain before the date of filing of the application for protection as utility model (Article 145 of the Patent Act). Therefore, that state of the art is different to the one that is relevant for patents, not only because it is a state of only national art but also because an invention is not already anticipated when the knowledge has been made available to the public (as with patents) but requires that there be something more than mere accessibility of the knowledge. It is necessary that this knowledge has been disseminated in Spain, *i.e.* that the knowledge has been disseminated among the interested circles.

Another major difference is that the inventive activity required for utility models is lower than that required for patents. For patents, there is an inventive activity if the invention 'does not result from the state of the art in a manner obvious to a person skilled in the art' (Article 8). However, for utility models, there is an inventive activity if the object of the application is not the result of the state of the art in a *very* obvious way.

In short, the idea is to protect small inventions of national novelty which have a very small degree of innovation. Nevertheless, it is a fact that the utility model protection, as presently regulated, meets a valuable purpose, especially for Spanish SMEs.

Let us look at the statistics: 2,814 protection applications were filed in 2006, of which 95% were filed by persons resident in Spain.

Those models have been considerably criticised because they require only a national novelty, but experience shows that there are few cases where a utility model has been challenged, claiming that it has been copied from objects well known abroad and, therefore, that the owner was not the person who invented it. If an object from abroad is copied, the truth is that in most cases, that object of the utility model is not exploited in Spain if utility model protection is not obtained.

On the other hand, the requirement for a purely national novelty is used for certain types of industrial property protection, *i.e.* when this is of interest for industrial policy purposes. For example, in Germany, Paragraph 3 of the 1986 Gebrauchsmustergesetz (German Utility Model Law) establishes that the state of the art is the knowledge existing in a written description or a public use in the scope of protection of the Law.

Article 6 of the Directive on the Legal Protection of Designs prevents protecting the object concerned if it has been marketed or disseminated 'except where these events could not reasonably have become known in the normal course of business to the circles specialised in the sector concerned, operating within the Community'. This rule is also contained in Article 7 of the Regulation on Community Designs.

Therefore, it is not acceptable that when there are sufficient interests, the state of the art can be limited in such a way as not to include everything that is accessible to the public worldwide, and in other cases, the inclusion of such kinds of limitations is considered contrary to the principles of industrial property.

7. Codifying Industrial Property

Lastly, we must also consider whether it is appropriate to unify the various types of industrial property into a single code. This possibility is supported by the fact that industrial property has been codified in both France and Italy.

In France, the Intellectual Property Code was enacted by the Law of July 1, 1992. That code forms part of the new French codification, which has led to the enactment of several codes, each containing specific legal material. The idea is to make the legislation in force more manageable since it is scattered in many cases, making it difficult for citizens to know what regulation is applicable in each case. Moreover, the new French codes are special because the numbers of all chapters of each codes' books are independent. This facilitates legislative amendments, which, unfortunately, are very frequent at present so that when including the new legal texts, the numbers of the corresponding chapters can be changed without affecting the numbers of the articles included in the code.

The French Intellectual Property Code comprises not only the industrial property regulations but also the literary and artistic property regulations. Therefore, we can say that this Intellectual Property Code contains the intellectual property regulations in a broad sense. Nevertheless, it is a duly arranged compilation of the pre-existing regulations so that each subject matter in the code corresponds to the rules that were previously in force. This means that there is a general part missing that is applicable to the various types of intellectual property since each one is regulated in a separate way.

Another codification experience has been undertaken in Italy, which enacted the Industrial Property Code through the legislative decree of February 10, 2005. In this case, the regulations of the various types of industrial property effectively maintain their independence, although some common provisions have been included such as the provisions of the first chapter which, after delimiting the industrial property rights, deal with the creation and acquisition of those rights, treatment of foreign

rights, priority, exhaustion and joint ownership. There are also common chapters, such as those that refer to the procedural provisions and the acquisition and maintenance of industrial property rights, as well as the regulations on the professional code. Although it maintains the regulations applicable to the various types of industrial property separated, Italy has made an effort to establish common rules to all of them. Nevertheless, those common rules applicable to the various types of industrial property have not introduced any fundamental novelties in the new regulations. Therefore, it is a compilation that includes chapters that regulate in general the subject-matter considered to be common to the various rights protected.

In view of this codification trend in some countries in the last few years, we must consider whether this example should also be followed in Spain. In Spain, the various types of industrial property were regulated in a single law under the Industrial Property Law of May 16, 1902, replaced by the Industrial Property Statute of 1929, which included in the same legal text the regulations of all industrial property matters as well as a general part which was not very big (44 articles) but was applicable to all types of industrial property.

Therefore, that trend of unifying the regulations of all types of industrial property into a single law or code already existed in Spain. When the 1986 Patent Act was passed, it was decided that there would be different laws for each type of industrial property, patent, brand/trademark and industrial design. In fact, dispensing with a single legislation for all industrial property and replacing this with separate laws for each type of protection was considered to be a major advance. Therefore, it is surprising that the question of codification has been raised twenty years later, which would mean returning to the regulations before the Patent Act was enacted in Spain.

When raising the fundamental issue of whether there are technical reasons for unifying industrial property into a single code, we must remember that there are a number of topics that are common to all types of industrial property; their regulation is contained in the various laws with practically similar wording. This is the case for the rules that regulate the means for protecting industrial property rights, as well as the rules on priority and on the exhaustion of rights. In view of this situation, perhaps it would be interesting to establish some general rules for those subject-matters and then establish specific rules for each type of industrial property.

There is also another possibility which would be interesting specifically for the Spanish code. In Spain, a new Mercantile Code is currently being drafted in order to unify the private law rules applicable throughout the Spanish market into a general single body. That new code will be important because at a Constitutional level, the State has exclusive powers in mercantile legislation in Spain and therefore, the rules of the future Mercantile Code will be valid throughout Spain. That code will obviously have to refer mainly to the regulations for entrepreneurs and other economic operators and will have to deal with the elements that are integrated in an undertaking. From that point of view, it should include at least some industrial property rules since a legal text that regulates undertakings' market activity should mention the fundamental elements of that activity, such as exclusive industrial property rights. Therefore, it should include some rules that show the link between industrial prop-

erty rights and entrepreneurial market activities, while respecting the various specific laws on each type of industrial property.

Nevertheless, any legal amendment should be carefully studied since it is pointless to change the legislation in force if there is no clear need for those changes. We must remember that when a law has been in force for a certain time, it has set a precedent for case law or doctrine that completes or interprets the law and which is of enormous value to legal certainty. When a legal text is changed, that case law and doctrine are lost; therefore, the change makes sense if the situation requires, but that loss is pointless if the legal amendment is made simply in an effort to make changes.

Incorporation of Patent Law into Part Four of the Russian Civil Code – A Structural Analysis

Adolf Dietz

For many years I had friendly relations with Joseph Straus literally from door to door, based, in particular, on a permanent common interest in the development of intellectual property law in Central, Eastern, and South East Europe. To the latter countries, Joseph Straus has well known and special biographically backed personal and scientific bonds. Consequently it may be of interest for him to learn more about the recent evolution of IP legislation in post-socialist Russia, characterized by the codification of the whole field of intellectual property within Part Four of the Civil Code of the Russian Federation, a keen and partly questionable endeavour indeed. Prominently it also concerns patent law as a part of IP law, a field of law to which Joseph Straus has contributed much.

1. Introduction

1.1 A New Part of the Russian Civil Code and Its Content

As of January 1, 2008, Part Four of the Civil Code of the Russian Federation (*Graždanskij kodeks Rossijskoj Federacii – Čast' četvertaja*)[1] entered into force.[2] As a result, the Russian Civil Code now consists of four parts altogether[3] (seen as an entire whole with continuous counting of Sections, Chapters, and Articles). Within only one new Section (*razdel*), namely section VII and nine new Chapters[4] (*glavy*), Part Four deals exclusively with intellectual property in the modern sense, including all variants of industrial property and copyright law (authors' rights and neighboring or related rights).[5]

Seen as an isolated piece of legislation, Part Four of the Russian Civil Code could consequently be characterized as an intellectual property code, comparable

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1 *See* Federal Law No. 230-FZ of December 18, 2006, *Rossijskaja Gazeta* No. 289 (4255) of Dec. 22, 2006 = *Sobranie zakonodatel'stva RF* (SZ RF) No. 52 (Part I) of Dec. 25, 2006, Item 5496, p.14803.

2 *See* Article 1 of the corresponding Federal Law on the Introduction into Operation of Part Four of the Civil Code of the Russian Federation (*Federal'nyj Zakon o vvedenii v dejstvie časti četvertoj Graždanskogo kodeksa Rossijskoj Federacii*) No. 231-FZ of December 18, 2006, *Rossijskaja Gazeta, supra* note 1 = SZ RF *supra* note 1, Item 5497, at 14950 (cited as 'Introduction Law 2006').

3 For an English translation of Parts One to Three *see* BUTLER (ed.), Civil Code of the Russian Federation. Parts One, Two, and Three (Oxford University Press 2002).

4 Chapters 69 through 77.

5 As far as copyright law is concerned *see* DIETZ, Regulation of Copyright Law in the New Part IV of the Russian Civil Code: Regression in System, but Moderate Progress in Substance, in: BAKARDJIEVA-ENGELBREKT/NORDELL (eds.), Festskrift Marianne Levin, 209 (2008).

for example, with the French Intellectual Property Code of 1992.[6] Nevertheless there is a decisive difference: Part Four of the Russian Code is introduced by a Chapter on 'General Provisions' (Chapter 69, Articles 1225 through 1254[7], applicable in principle, to all the following detailed regulations of the individual industrial property rights *as well as* to copyright.

More concretely, Chapter 69 concerns general provisions on protected objects; the content of protection in general (property rights, personal non-property rights and other rights); a general definition of 'author' including, according to an old Russian tradition, 'authors of inventions' (inventors) as well as their position as original right holders; some provisions on foreigners; basic provisions on content, effect and limitations of exclusive rights and their time limits; legal transactions on exclusive rights by assignment and licenses as well as the various forms of licensing including sub-licenses and compulsory licenses; and administrative and court competence in cases of legal disputes in intellectual property matters as well as enforcement provisions.

On the other hand, these 'General Provisions' as contained in the introductory Chapter 69 of the new Code are not always of relevance for all individual matters as later regulated. There are provisions which clearly concern only copyright law (including neighboring rights) such as those on collecting societies (Articles 1242–1244) and those on remuneration for private copying (Article 1245)[8], whereas other provisions such as those on compulsory licenses (Article 1239), on official registration of protection rights (Article 1232) and on the corresponding administrative fees (Article 1249) as well as on patent attorneys (Article 1247), almost exclusively concern industrial property rights.[9] The renewed discussion in Germany on the feasibility of a 'General Part' of intellectual property legislation[10] will find some less convincing illustrative material here.[11]

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[6] For a German translation *see* DREIER/KRASSER, Das französische Gesetzbuch des geistigen Eigentums (1994).

[7] If not indicated otherwise references to Articles concern Part Four of the Civil Code.

[8] The reason for this rather curious separation of copyright law proper and collecting societies law lies in the fact that authors' rights and neighboring (related) rights are dealt with in two independent chapters, namely Chapters 70 and 71, whereas regulation of collecting societies and of remuneration for private copying concerns both of them. In my view such a constructive approach destroys the systematic texture of a modern copyright regulation; *see* DIETZ, *supra* note 6, at 216.

[9] Official registration is relevant for Copyright only insofar as facultative registration of protected computer programs and data baases is concerned; *see* Article 1262 in the copyright chapter (Chapter 70).

[10] *See* only AHLERS, Brauchen wir einen Allgemeinen Teil der Rechte des Geistigen Eigentums?, 2006 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 617 (with further references) and OHLY, Geistiges Eigentum?, 2003 Juristenzeitung (JZ) 545.

[11] AHLERS, *supra* note 10, at 619, refers to Dutch discussions as models for a preliminary draft of Part Four of the Russian Civil Code; it must be noted, however, that the drafters of the modern Dutch Civil Code finally have dropped the idea of including IP law in the code. For details *see* DITC [DIETZ], Mesto zakona ob intellektual'noj sobstvennosti v pravovoj sisteme [The Place of the Law on Intellectual Property in the Legal System], 1997 Problemy promyšlennoj sobstvennosti No. 2, 15, at 22 *et seq.*

1.2 Total Revocation of the Preexisting Laws

The codification of Russian IP law means much more than only an orderly consolidation of preexisting law. First, as compared to the previous regulations, the whole article scheme has been rearranged and broken up; many provisions within the articles were also reorganized mostly in a more logical and transparent order.[12] Second, many provisions have been reformulated or amended, not only for formal or stylistic reasons, but also in many cases in a more or less thorough manner.[13] Finally, some complexes of regulation which hitherto were not at all or only rudimentarily regulated have been introduced into the new Code such as a new chapter on know-how-protection (Chapter 75, Articles 1465–1472)[14] as well as at first glance, a rather difficult Chapter on the 'Right of utilization of results of intellectual activities as part of a unified technology' [15] (Chapter 77, Articles 1542–1551).

In contrast to a whole range of different approaches and proposals during long years of heavy debates[16] concerning the necessity or opportunity of the adoption of an intellectual property code, in the final phase of the preparation of the new Part Four of the Civil Code, the proponents of a fully integrated and comprehensive codification (including the procedural aspects, so characteristic for certain parts of intellectual property, such as, in particular, patent law) had the upper hand. As a consequence, all preexisting special laws were repealed with effect from January 1, 2008, the effective date of the new Part Four of the Civil Code. That is true, particularly[17] for the Patent Law of the Russian Federation (*Patentnyj zakon RF)* of September 23, 1992[18] as last amended by Amendment Law of February 7, 2003 as well as for the Decree on the Introduction into Operation of the Patent Law as last amended by Federal Law of August 22, 2004.[19]

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[12] Russian legal provisions are traditionally organized according to articles (*stat'i*), points (*punkty*) and paragraphs (*abzacy*). That is often also a consequence of the important length of some articles, characteristic *e.g.* for the previous Patent Law of 1992. *See infra* text at note 57 *et seq.*

[13] *See*, as far as copyright law is concerned, DIETZ *supra* note 5, at 217 *et seq.*

[14] The preexisting rudimentary provisions on the protection of employment and commercial secrets as contained in Part One of the Russian Civil Code (Article 139) have been abolished by Article 17 No. 12 of the Introduction Law 2006 (*see supra* note 2); the separate Law on Commercial Secrets (*Federal'nyj zakon o kommerčeskoj tajny*) No. 98-FZ of July 29, 2004, SZ RF 2004 No. 32, Item 3283, has been maintained, but nevertheless significatly amended and shortened by Article 34 of the Introduction Law 2006; English translation of the original text in BUTLER (ed.), Intellectual Property Law in the Russian Federation, 259 (4th ed. 2005).

[15] In Russian: *„Pravo ispol'zovanija resul'tatov intellektual'noj dejatel'nosti v sostave edinoj technologii*'.

[16] *See* only CVETKOV, Sistematizacija zakonodatel'stva ob intellektual'noj sobstvennosti: pro et contra [Systematisation of Legislation on Intellectual Property: pro and contra], 2004 Rossijskaja Justicija No. 6, p. 24.

[17] *See* Article 2 Nos. 31, 32, 43 and 50 of the Introduction Law 2006 (*supra* note 2).

[18] English translation in: BUTLER (ed.), *supra* note 14, at 128; German translation in: 1993 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 670.

[19] English translation in: BUTLER (ed.), *id.*, at 189.

Other special IP laws were also repealed with effect from January 1, 2008,[20] such as the Law on Trademarks, Service Marks, and Indications of the Origin of Goods of September 23, 1992[21] (as amended) together with the Decree on its Introduction into Operation of the same date;[22] the Copyright Law (Law on Author's Rights and Neighboring Rights) of July 9, 1993[23] as amended by Law of July 20, 2004 together with the Decree on its Introduction into Operation of the same date;[24] the Law on the Legal Protection of Computer Programs and Data Bases of September 23, 1992[25] together with the Decree on its Introduction into Operation of the same date.[26]

Seen from a practical point of view, the complete repeal of all these preexisting special laws must necessarily create uncertainties in the transitory period, especially since, as already mentioned, most provisions were not transferred to the new code without important changes. A synoptic comparison and overview over the changes and rearrangements as introduced by the new regulation is, as far as known to me, not yet available. It would certainly not be an easy task to establish such a synopsis. It would, however, certainly alleviate slightly the difficulties and uncertainties with which practitioners will have to reckon in the months to come.

2. Prehistory of the New Code

2.1 An Old Tradition: Code and Special Law

Regulation of intellectual property (formerly, not yet under that summary designation, in particular not in socialist times)[27] within the Civil Code had a long tradition in the former Soviet Union. Particularly copyright law and to a rudimentary degree patent law (or better, inventor's law)[28] were regulated as part of the so-called 'Fundamentals of Civil Legislation of the Union of the Soviet Socialist Republics and of the Union Republics' (*Osnovy graždanskogo zakonodatel'stva Sojuza SSR i Sojuznych Respublik*) of 1961 as well as as part of the corresponding Civil Codes of the Union Republics, which were based on the 'Fundamentals.' The model role for

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[20] *See* Article 2 Nos. 33 and 34, 41, 42 and 51 as well as 35 and 36 of the Introduction Law 2006 (*supra* note 2).

[21] English translation in: BUTLER (ed.), *supra* note 14, at 76; German translation: *supra* note 18, at 679.

[22] English translation in: BUTLER (ed.), *id.*, at 125.

[23] English translation in: BUTLER (ed.), *id.*, at 15; German translation: *supra* note 18, at 853.

[24] English translation in: BUTLER (ed.), *id.*, at 66; German translation: *id.*, at 865.

[25] English translation in: BUTLER (ed.), *id.*, at 203; German translation: *id.*, at 756.

[26] English translation in: BUTLER (ed.), *id.*, at 219.

[27] For the ideological reasons for the former avoidance of the term 'intellectual property' *see* BUTLER, *supra* note 14, at X.

[28] Apart from special cases (*e.g.* in favour of foreign applicants) as a rule no exclusive patent rights but only remuneration rights based on so-called inventor's certificates (litterally 'author's certificates') were granted; *see* generally DIETZ, Die Patentgesetzgebung der osteuropäischen Länder. Erster Teil: Grundlagen der Patentgesetzgebung in der Sowjetunion, 1976 GRUR Int. 139.

such Civil Codes on the level of the Republics was played by the Civil Code of 1964 of the Russian Socialist Federative Soviet Republic (RSFSR)[29], the biggest and by far the most politically important of the 15 Union Republics of the former Soviet Union.

In contrast to the situation in the field of copyright (author's rights) protection, the differences in the field of patent (inventors') law between regulation in the 'Fundamentals' and in the Civil Codes of the Republics themselves were negligible[30] since the detailed provisions including the important procedural and administrative aspects were contained in Decrees, such as the historically latest one, the Decree on Discoveries, Inventions and Rationalization Proposals of August 21, 1973 (as last amended in 1990).[31] That Decree was still based almost exclusively on the concept of 'socialist inventors' protection', the latter based on the so-called inventor's certificate (literally 'author's certificate', in Russian *avtorskoe svidetel'stvo*) a nonexclusive form of 'protection' which only granted a remuneration right in the case of use of an invention by state enterprises. The exclusive form of protection by real patents was normally only granted to foreign applicants.[32]

Shortly before the dissolution of the former Soviet Union in December 1991, a renewed version of the 'Fundamentals of Civil Legislation of the USSR and of the Republics' (*Osnovy Graždanskogo Zakonodatel'stva Sojuza SSR i Respublik*) was adopted on May 31, 1991. It again included a rudimentary but already market-oriented regulation of intellectual property, particularly patent law.[33] The new 'Fundamentals' should have entered into force on January 1, 1992, but this could no longer occur because of the end of the Soviet Union in December 1991.[34] Nevertheless, these 'Fundamentals' of 1991 were declared 'applicable' in the Russian Federation until the adoption of a new civil code, by a Decree, dated July 14, 1992, of the Supreme Soviet for the Russian Federation 'On Regulation of the Civil Law Relations in the Period of Economic Reform.'[35]

Additionally, still during the existence of the former Soviet Union, the 'Fundamentals 'of 1991 had been in a way 'implemented' and completed by the 'USSR Law on Inventions' (*Zakon SSSR ob izobretenijach v SSSR*) of May 31, 1991, which, in contrast to the Fundamentals themselves, already entered into force as of July 1, 1991[36]. That law finally replaced the old socialist regime, based on the Decree of 1973; in its basic character it was already a rather modern patent law. If one could assume that even after the dissolution of the USSR, its last Patent Law

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[29] *Graždanskij Kodeks RSFSR*

[30] See generally DIETZ, in: FINCKE (ed.), Handbuch der Sowjetverfassung, Band I, 566-567 (1983).

[31] German translation in: 1975 Blatt für Patent. Muster- und Zeichenwesen (Bl. f. PMZ) 233.

[32] For more details *see* DIETZ, *supra* note 28, at 139-141.

[33] *See* generally ALTHAUS, Das Recht der Arbeitnehmererfindungen in Deutschland und Russland. Eine rechtsvergleichende Untersuchung, 116 *et seq.* (1996).

[34] *See* GAVRILOV, Gegenwärtiger Stand und Perspektiven des Schutzes des geistigen Eigentums in der Russischen Föderation, 1992 GRUR Int. 893, at 894 *et seq.*

[35] *See* GAVRILOV, *supra* note 34, at 895.

[36] *See* BUTLER, *supra* note 14, at XXV.

(Law on Inventions) still formed part of the legal order of the RSFSR[37] (later called the Russian Federation), it was eventually replaced by the new Patent Law of the Russian Federation of September 23, 1992.[38]

That latter law was applied until the end of 2007. As of January 1, 2008, it was itself replaced by the relevant provisions, in particular Chapter 72, of the new Part Four of the Civil Code RF. As an aside, some remaining,[39] but essentially obsolete provisions of the old (socialist) Civil Code of the RSFSR of 1994, including some provisions on patent (inventors') law were formally repealed[40] only by Article 2 No.1 of the Introduction Law 2006.[41] Finally, as a clarification, the remaining provisions of the 'Fundamentals' of 1991 together with the relevant Introduction Decree of May 31, 1991 were also formally declared inapplicable by Article 3 Nos. 3 and 4 of the Introduction Law 2006. As a consequence, only as of 2008 all parts and provisions of the Fundamentals of 1991 as well as of the (old) Civil Code of the RSFSR of 1964 are no longer in force. In a certain way, that also represents the final end of the system of parallelism of a rudimentary regulation of patent law in the Civil Code and complementary detailed regulation by special acts of legislation.

2.2 A Different Approach: Comprehensive Regulation in the Code Alone

Relatively soon after the dissolution of the former Soviet Union, the preparation of a new Civil Code began.[42] The result was the step-by-step adoption of the altogether four Parts of the Civil Code of the Russian Federation. As far as patent law is concerned (that is true also for the other fields of intellectual property), from the beginning it was unclear, or rather highly disputed, whether one should follow the traditional method of having a number of basic rules in the Code, which then would have to be implemented and completed in detail by the provisions of a special law, or whether the codification should be as comprehensive as possible, not repeating the old parallelism.

As already mentioned, the latter alternative was finally adopted by the legislators. Still, the enduring disputes and debates concerning the correct legislative approach were one of the reasons why the adoption of Part Four of the Civil Code

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[37] *See* GAVRILOV, *supra* note 34, at 895.

[38] *See supra* note 18.

[39] Important portions of the old RFSFR Civil Code of 1964, corresponding to the individual Parts of the Civil Code RF had already been repealed by the respective Introduction Laws of Parts One 1994, Part Two 1996 and Part Three 2001 of the latter Code; *see* BUTLER, *supra* note 3, at 451, 457, and 461, respectively.

[40] As far as the dubious factual applicability or obsoleteness of the old patent law (inventors' law) provisions of the RSFSR Civil Code of 1964 is concerned, *see* GAVRILOV, *supra* note 34, at 895.

[41] *See supra* note 2.

[42] *See* SOLOTYCH, Das Zivilgesetzbuch der Russischen Föderation – Erster Teil. Textübersetzung mit Einführung, 15 (1996); CVETKOV, *supra* note 16, at 24 *et seq.*; GAVRILOV, O proekte časti četvertoj GK RF o prave intellektual'noj sobstvennosti [On the Project of Part Four of the CC RF on Intellectual Property], 2006 Chozjajstvo i pravo No. 11 p. 30 *et seq.*

RF dealing exclusively with intellectual property was so difficult to achieve, taking several attempts.

Part One of the Civil Code of the Russian Federation came into force on January 1, 1995.[43] It represents what one can call the 'General Part' of civil law. Three Sections (Chapters 1 through 29) deal with natural and juridical persons (in particular commercial societies), objects of civil rights (mentioning already intellectual property), transactions and representation, periods and limitations (Section I), the right of ownership and other rights (Section II), and finally, the general part of the law of obligations (law of contracts) (Section III).

Part Two of the Civil Code RF came into force on January 1, 1996, relatively quickly after Part One. In its only Section IV (Chapters 30 through 60), it deals exclusively with the special part of the law of obligations, *i.e.*, with individual types of obligations, particularly with the various types of civil contracts. Originally Part Two should have already comprised intellectual property and other material (inheritance law and international private law).[44] However, it was already obvious at that time that the plans to codify intellectual property as a whole would be met with many objections and critical observations, partly theoretical and partly pragmatic, not only in Russia herself but also with some emphasis in foreign countries.[45]

As a result of all this resistance, particularly from professional circles of Russia herself,[46] intellectual property could again not be incorporated, otherwise than originally planned, even into Part Three of the Civil Code RF, which came into force on March 1, 2002. Therefore, that latter part of the Civil Code only comprises inheritance law (Section V)[47] and international private law (Section VI). But, after continuing fierce debates, the more radical concept, as mentioned before, *i.e.*, an all comprehensive codification of intellectual property in a separate Part Four of the Civil Code RF together with a complete repeal of the pre-existing special legislation,

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[43] For an English translation *see* BUTLER (ed.), *supra* note 3, at 1.

[44] *See* SCHMITT/WEBER, Zum Inkrafttreten des Zweiten Teils des russischen ZGB, 1996 Zeitschrift für Wirtschaft und Recht in Osteuropa (WiRO) 86.

[45] *See* the overview on pros and cons given by CVETKOV, *supra* note 16, at 24 et seq.; *see* also GAVRILOV, Vtoroj proekt četvertoj časti GK: pervoe vpečatlenie (The Second Project of Part Four of the CC: First Impression), 2006 Patenty i licenzii No. 4 p. 2; from a comparative perspective *see* DITC [DIETZ], *supra* note 11, at 15 *et seq.*

[46] *See* in particular EREMENKO, O časti četvertoj Graždanskogo kodeksa Rossijskoj Federacii (On Part Four of the Civil Code of the Russian Federation), 2007 Zakonodatel'stvo i ėkonomika Nr. 7 p. 28, at 40 as well as the critical position taken by SERGEEV, Ob-ektivnych predposylok dlja sročnogo prinjatija četvertoj časti GK net (There are no Objective Conditions for an Early Adoption of Part Four of the Civil Code RF), 2006 Patenty i licensii No.5 p. 6; *idem,* Zaključenie na proekt časti četvertoj Graždanskogo kodeksa RF (Conclusions on the Project of Part Four of the Civil Code RF), 2006 IS.APiSP No. 7 p. 4.; and by FEDOTOV, Zaključenie na proekt časti četvertoj Graždanskogo kodeksa RF (Conclusions on the project of Part Four of the Civil Code RF), 2006 IS.APiSP No. 8 p. 4; *idem*, Proščanie s principami? (Good-buy to the Principles?), 2006 Rossijskaja justicija No. 8 p. 8. S*ee* also BUTLER, *supra* note 14, at IX. A more or less exhaustive documentation of the numerous statements and comments for and against the adoption of Part Four of the Russian Civil Code was not intended here.

[47] Family law in Russia is regulated outside the Civil Code in a special code, the Family Code (*semejnij kodeks*).

finally came out as the winner. Still, almost six years after Part Three, on January 1, 2008, Part Four of the Civil Code RF came into force. In its only Section VII (Chapters 69 through 77), it contains the whole field of intellectual property, astonishingly not regulated under that general title, but under the rather uncommon title of 'Rights in results of intellectual activity and in means of individualisation.' [48]

3. The Concept of Intellectual Property

As just mentioned, the very term 'intellectual property' (in Russian '*intellektual'naja sobstvennost"*) is not prominently used in the new Section VII of the Civil Code RF or at least not in its general title. That is an astonishing fact, seen from the comparative and international context where the term of intellectual property is so important today as a term covering almost all aspects of modern industrial property and copyright.[49] Still, for simplicity's sake, it seems justified to call that code an intellectual property code as does part of Russian legal doctrine itself,[50] the more since that term is used twice at the beginning of the whole regulation in Section VII. That does not change the overall impression of uneasiness that the Russian legislators felt with that term.[51]

The two cases where that term is used, indeed, concern the very first article of Section VII, namely Article 1225. Its Point 1 contains a listing of the objects protected by intellectual property. That latter term appears in brackets as a comprehensive definitional term designating 'the results of intellectual activity and – as assimilated to them – the means of individualisation of juridical persons, goods, works, services and enterprises.'[52] The other case concerns Point 2 of that Article 1225, where we find the very rudimentary statement that 'Intellectual property shall be protected by the law,' a formulation which corresponds with an identical constitutional guarantee in Article 44 of the Russian Constitution of 1993.[53]

In the following articles of Section VII, the law only mentions 'intellectual rights' ('*intellektual'nye prava*') granted to 'the results of intellectual activity and the means of individualisation' which are the real objects of the regulation and which include, according to Article 1226, exclusive rights as property rights (in Russian '*imuščestvennye prava*') as well as, in the cases provided by the present

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[48] In Russian: „*prava na rezul'taty intellektual'noj dejatel'nosti i sredstva individualizacii*"; the latter part of that expression covers the whole field of trademark and trade name law.

[49] See only the Title of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS-Agreement) of April 15, 1994 as well as the (indirect) definition of the term of 'Intellectual Property' in its Article 2(2); the Russian Federation, it is true, is not yet a party to that Agreement, since the negotiations on her access to the WTO-system have as yet not been successfully concluded

[50] *See*, *e.g.*, the title of the article written by GAVRILOV, *supra* note 42.

[51] For some doctrinal reasons for that attitude, in particular, the distinction between the narrower term of ownership and the broader term of property, *see* BUTLER, *supra* note 14, at IX *et seq.*

[52] In the same way the new version of Article 2 Point 1 of Part One of the Civil Code RF, as amended by Article 17 No. 1 of the Introduction Law 2006 (*see supra* note 2); as before Article 2 of the Civil Code RF defines the overall field of regulation by civil legislation.

[53] *See* BUTLER, *supra* note 14, at XI.

Code, personal non-property rights (in Russian *ličnye neimuščestvennye prava*), *i.e.*, personality rights and other rights.

But the regulation is not totally consequential since even the term 'intellectual rights' appears only in the context of the regulation of the results of truly intellectual activity, covering, according to Article 1225 Point 1, works of science, literature and art; computer programs; databases; performances; phonograms; broadcasts by radio, television, and cable; inventions; utility models; industrial designs; plant varieties and topographies of integral microcircuits (microchips).

On the other hand, regarding the so-called 'means of individualisation' as concretely regulated in Chapter 76 (trade names, trademarks and service marks, indications of the origin of goods, business signs), the law no longer speaks of intellectual rights but only of exclusive rights. Of course, from a natural point of view such differentiation appears logical, but it contradicts Article 1226 where such a distinction is not made, since both groups of objects are granted 'intellectual rights' there. Of course, at least for inventions it is assured that they concern such 'intellectual rights.'

Such terminological uncertainties and inconsequentialities may demonstrate that Part Four of the Civil Code RF is not a mature piece of legislation in every respect; there are signs, indeed, that in the end, the adoption of that Part has been forced through without taking into consideration the heavy doubts expressed by many Russian specialists.[54]

4. The General Structure of the New Regulation of Patent Law in Part Four of the Civil Code RF

4.1 The Significance of the 'General Provisions' (Chapter 69) for Patent Law Proper

The new Russian patent law is essentially regulated in Chapter 72 (Articles 1345 through 1407) of Part Four of the Civil Code RF. Nevertheless it must be noted again that many of the 'General Provisions' as contained in the introductory Chapter 69 are also relevant for patent law. As a consequence, the interplay between those 'General Provisions' in Chapter 69 and the 'special' patent law provisions in Chapter 72 must always be kept in mind. That is particularly true for the general provisions concerning personality rights of 'authors' since in Russian terminology an inventor is also called an author (of the invention). The inventor consequently profits from the personality rights granted to authors in general in the introductory Chapter (especially in Article 1228 Point 2).[55]

Of course, the necessity to always take into consideration such interplay of rules somewhat complicates the application of the new regulation. However, that necessity appears as the natural result of a codification concept which tries to put 'before

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[54] *See* only the critical position taken by the authors as cited *supra* in note 46.

[55] For more details *see infra* under 5; for other cases of such interplay of rules *see infra under* 6 (Concluding Remarks).

the brackets' as many common or general provisions as possible, applicable to all kinds of intellectual property rights. But, as we will see later in the case of the personality right of the inventor, the situation gets problematic when contradictions and other difficulties of interpretations come to light when applying general and special rules side by side.[56]

4.2 New Outer and Inner Arrangement of the Provisions of Chapter 72 on Patent Law Proper

Chapter 72 regulating patent law as such is arranged in 8 Sub-Chapters altogether (designated by the '§' sign in the Russian original text). These are: § 1 – Basic provisions; § 2 – Patent rights; § 3 – Disposition (rasporjaženie) of exclusive rights in inventions, utility models or industrial designs; § 4 – Inventions, utility models and industrial designs created in connection with the fulfilment of an employment duty or during the execution of contracted works; § 5 – Obtaining of the patent (with the sub-paragraphs 1. Application; 2. Priority; 3. Examination and provisional protection; 4. Registration and grant of the patent); § 6 – Termination and restoration of operation of the patent; § 7 – Peculiarities of legal protection and use of secret inventions; § 8 – Defence of the rights of authors and patent holders. The number of Articles of Chapter 72 amounts to a total of 63 (Articles 1345 through 1407).

The previous law, the Patent Law of 1992,[57] also comprised 8 Sections altogether (Razdely), as follows: I. General provisions; II. Conditions of patentability; III. Authors [inventors] and patent holders; IV. Exclusive right to invention, utility model, or industrial design; V. Obtaining of the patent; VI. Termination and restoration of operation of the patent; VI[1]. Peculiarities of legal protection of secret inventions; VII. Defence of the rights of patent holders and authors; VIII. Concluding provisions. As can easily be seen, these Sections of the previous Patent Law of 1992 correspond only partly with the 8 Sub-Chapters of the actual regulation. The overall number of articles of the previous law amounted to 45, including a number of provisions introduced by later amendments of the law.

A detailed analysis, which is not intended here, would show that almost all provisions of the previous law correspond more or less with provisions in Chapter 72 of Part Four of the Civil Code RF, but with numerous alterations and reformulations. The outer and inner arrangement of the provisions in the new codification of patent law, however, appears much clearer and more transparent than in the previous regulation. That admittedly positive result is primarily due to the fact that the number of articles has been increased. Additionally, a more coherent and concise inner arrangement of many articles has been achieved.

The increase of the number of articles is remarkable, particularly with respect to Articles 19 and 21 of the previous Patent Law of 1992. Those Articles ran over sev-

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[56] For examples from the field of copyright law *see* DIETZ, *supra* note 5, at 214 *et seq.*

[57] *See supra* note 18.

eral densely printed pages and regulated the priorities connected with the three kinds of protection rights as well as the examination procedure, respectively. These matters are now regulated in three new articles (Articles 1381–1383) as to the priority question and in not less than six new articles (Articles 1384–1389[58]) as to the examination procedure. Since every new Article carries its own title (e.g. Article 1381 – Establishment of the priority of the invention, utility model or industrial design; Article 1382 – Convention priority of the invention, utility model and industrial design; Article 1383 – Consequences of identity of priority dates of an invention, utility model or industrial design), it is obvious how much that new arrangement in three Articles facilitates understanding and application of the regulation of the priority questions now.

The inner arrangement of the new articles of the Code according to 'points' and 'paragraphs' is often also much clearer and more consequential now, demonstrated for example by the new regulation of the period of protection of the three protection rights. In the previous Patent Law of 1992 that matter was regulated at a rather hidden place, namely in Point 3 Paragraphs 1 through 7 within Article 3 which carried the very general title of 'Legal protection of inventions, utility models and industrial designs.' That complex of rules is much more transparently regulated now in an article of its own (Article 1363); in altogether five Points, it deals with the 'Periods of operation of the exclusive rights to an invention, utility model and industrial design.'

From a purely structural point of view, the increase of the overall number of articles and the corresponding titles they carry and their much clearer inner arrangement represent certainly some of the fortunate features of the new regulation of intellectual property in Part Four of the Civil Code RF, including but not limited to the patent field.

4.3 The 'Integrated' or 'Combined' Regulation of the Three Protection Rights (Inventions, Utility Models, Industrial Designs)

As is already evident from the content and the titles of the eight Sub-Chapters of the previous as well as the new regulation, the new codification has maintained a particularity of the previous Patent Law of 1992, namely the 'combined' or highly integrated simultaneous regulation of legal protection of inventions (*izobretenija*), utility models (*poleznye modeli*) and industrial design (*promyšlennye obrazcy*) within one and the same law. For all three types of protection rights a 'patent' is granted and respectively named, a) 'patent to invention' (*patent na izobretenie*), b) 'patent to utility model' (*patent na poleznuju model'*), and c) 'patent to industrial design' (*patent na promyšlennyj obrazec*).

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[58] In addition to that, a small portion of the provisions of the previous Article 21, namely its Point 9 Paragraphs 2 and 3 on dispute procedures, corresponds now (it is true, in strongly amended and enlarged form) with Article 1248, which forms part of the 'General Provisions' as contained in Chapter 69 of Part Four of the Civil Code RF.

From a practical point of view, therefore, one should always be aware of whether a specific provision concerns all three protection rights at the same time[59] or only one or two of them. The latter is particularly true for the application, examination and grant procedure. For example, one after the other, the three Articles 1350–1352 (corresponding to Articles 4–6 of the previous Patent law) regulate the conditions of patentability separately for the three types of protection rights. The same is true for Articles 1375–1377 (corresponding to Articles 16–18 of the previous Law) regulating, one after the other, the applications for issuance of patents separately for the three types of protection rights, whereas, on the other hand, Article 1374 (corresponding to the previous Article 15) contains common provisions for the filing of applications of all three types of protection rights.

The much more complicated examination procedure concerning *inventions alone* is regulated in Articles 1384–1389, whereas the simpler procedure concerning utility models and industrial designs is regulated in Articles 1390 and 1391, respectively. Another complex of provisions concerning *inventions alone* is Sub-Chapter 7 (Articles 1401–1407) regulating secret inventions; the total absence of corresponding provisions for the other two types of protection rights demonstrates that they are not covered at all by that special regime.[60]

As these examples demonstrate, the new regulation of patent law in the Civil Code, in the same way as the previous one in the Patent Law of 1992, can be called a 'combined' or 'integrated' solution, because the differentiation between the three types of protection rights is made only where absolutely necessary. That is perhaps one of the reasons why the regulation insists, with a certain amount of obstinacy, to use the comprehensive term of 'inventions, utility models and [or] industrial designs' wherever common provisions are concerned. As mentioned before, the latter is true in the great majority of cases. This element makes the whole regulation somewhat cumbersome and does not facilitate a smooth reading and understanding of it. One could have imagined perhaps a simpler term such as 'the (three) objects of protection,' which would not have hindered a differentiation where necessary and effectively made.

Another especially drastic example of that stylistic cumbersomeness of the regulation is the term used for the administrative organ competent in patent matters. Almost without exception or abbreviation it is permanently called 'Federal Organ of Executive Power for Intellectual Property' (*Federal'nyj organ ispolnitel'noj vlasti po intellektual'noj sobstvennosti*). That term is used, *e.g.*, not less than four times in Article 1368 on compulsory licenses; only in the last sentence of the last paragraph the shorter term of the 'Federal Organ as mentioned' (*ukazannyj federal'nyj organ*) is used. One could certainly have imagined a simpler term such as 'Patent Office' or

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[59] According to BUTLER, *supra* note 14, 80 % of the provisions of the previous Law were common to all three types of protection rights; since, in spite of a number of alterations and reformulations, the new codification corresponds to a high degree to the old Law, the same percentage is very probable also for the new regulation; *see supra,* at 4.2.

[60] But *see* Article 1390 Point 5, according to which the application of a utility model containing a government secret can be 'secretized' and possibly be transformed into the application of a secret invention.

'Rospatent.'[61] Nevertheless, one has to accept that this somewhat over-bureaucratic legislative technique is characteristic of the Russian tradition.

5. The Interplay between the 'General Provisions' of Chapter 69 and the Special Regulation of Patent Law within Chapter 72 in Case of the Inventor's Personal Rights

5.1 Existence of Inventor's Personal Rights

As already explained, in order to have a complete picture of the new regulation of patent law in Part Four of the Civil Code RF, the 'General Provisions' of Chapter 69 must always be taken into consideration in addition to the patent law chapter proper (Chapter 72), even if not all of them are relevant for patent law.[62] That interplay of general and special rules, which is not always without contradictions and terminological tensions, shall be analyzed now more concretely for the case of the inventor's personal rights on which the Russian regulation traditionally lays much stress and importance.

According to Article 1347, 1st Sentence as contained in Chapter 72, the citizen by whose creative labour the corresponding result of intellectual activity was created shall be deemed to be the author of an invention.[63] That, however, is only somewhat of a more concrete repetition of the general provision in Article 1228, Point 1, according to which the citizen by whose creative labour the result of intellectual activity was created shall be deemed to be the author of it. According to Article 1345, Point 2, No. 2, such author of an invention shall have the right of authorship (*pravo avtorstva*), a statement which again is only a repetition and confirmation of the general provision in Article 1228, Point 2, Paragraph 1, according to which the author of the result of intellectual activity shall have the right of authorship. According to Article 1356 that right of authorship (of the inventor) is defined as the right to be recognized as the author of the invention.

In addition, according to Article 1228, Point 1, Paragraph 1, in the cases as provided by the Civil Code the author shall also have the right to his name (*pravo na imja*) and other personal non-property rights. Since the special provision on the inventor's right of authorship within the patent law Chapter 72 (Article 1345) does not directly mention such a right to his name one could doubt whether such an additional personal non-property right shall also belong to the author of an invention

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[61] That term is traditionally used by the Russian Patent Office itself as abbreviation of the broader term of 'Federal Service for Intellectual Property, Patents and Trademarks' (*Federal'naja služba po intellektual'noj sobstvennosti, patentam i tovarnym znakam*); *see* Annual Report (*Godovoj otčet*) 2006, title page; *see* also KORČAGIN *et al.*, Kommentarij k patentnomu zakonu Rossijskoj Federacii (Commentary to the Patent Law of the Russian Federation), 5 (2004).

[62] *See supra* 1.1; as explained there, whole complexes of the „general' provisions such as the provisions on collecting societies or on remunerations for private copying are relevant only for copyright law.

[63] The same is true for utility models and industrial designs; these protection rights shall no longer be taken into consideration here.

(the inventor). Article 1345, Point 3, which could be relevant here, does not really help since it only mentions in an abstract way that the author of an invention shall also have other rights as provided by the Civil Code (*e.g.*, the right to receive the patent or the right to remuneration in case of use of a service invention).

On the other hand, according to Article 1347, second Sentence, the person who is specified as the author in the patent application shall be deemed to be the author of the invention, in the absence of evidence to the contrary. That provision, which of itself does not yet oblige to name the author in the application concerned, nevertheless already gives a hint that a possible right to be named of the author of an invention could exist. Indeed, according to Article 1375, Point 2, No. 1, the application for an invention *must* contain, *inter alia*, an application concerning the issuance of a patent *specifying the author* of the invention. The compliance with that obligation is verified during the formal examination procedure in accordance with Article 1284 Point 1. The latter is important also since, according to Article 1354, Point 1, the patent (document) certifies, *inter alia*, the authorship of the invention.

Further, according to Article 1385, Point 1, Paragraph 1, the information concerning the application (including the inventor's name) shall be published by the patent office. The same is true, according to Article 1394, Point 1, Paragraph 1, for the publication of information concerning the issuance of the patent. However, in both cases, according to Article 1385, Point 1, Paragraph 2, and Article 1394, Point 1, Paragraph 1, the inventor shall have the right to refuse to be mentioned as such in the information so published.

Finally, according to Article 1398, Point 1, No. 4, in case of the issuance of a patent either specifying as an author (inventor) a person who is not an author in accordance with the Civil Code or without indicating on the patent as author a person who is such an author in accordance with the Civil Code, the relevant patent may be declared invalid. Consequently, according to Article 1398, Point 2, Paragraph 2, objection to the issuance of the patent concerned can be made before a court in such a case by anyone who has knowledge of the incorrect specification, including the inventor himself.

All these provisions read together can only be interpreted in the sense that they are a reflex of a corresponding (additional) personal right of the inventor, namely the right to at least be named in the patent application and in the other patent documents, even if an express right to be named, in contrast to the copyright law chapter,[64] is not provided in the patent law chapter of the Code.

5.2 Legal Characteristics of the Personal Rights of the Inventor

Within the 'General Provisions' of Chapter 69 of Part Four of the Civil Code RF, Article 1228, Point 2, Paragraph 2 provides that the right of authorship and the right to the name and other personal non-property rights shall be inalienable and not transferable; waivers of such rights shall be invalid. As to the right of authorship of

[64] See Article 1255 Point 2, No. 3, as well as Article 1265 within the copyright law chapter (Chapter 70) of the Civil Code.

the inventor, these principles are again repeated almost literally in the patent law chapter (Article 1356). In addition, Article 1356 clarifies that these principles shall apply in case the exclusive right to the invention is assigned to another person or in case of transfer of it to another person or, else, in case of granting that person a right of use. In a similar way, according to Article 1370, Point 2, in case of a service invention (*služebnoe izobretenie*) the right of authorship shall still belong to the inventor. That must be read in the context of the remaining provisions on service inventions (in particular Article 1370, Point 3) which essentially state that in case of a service invention, the exclusive right to it shall belong to the employer unless provided otherwise by contract.

Further, according to Article 1228, Point 3, Paragraph 3, the right of authorship and the right to the name are protected without time limit. After the death of the author (of the invention) the latter rights may be enforced by any interested person with the exception of cases where the author has appointed specially entrusted persons to that purpose. There are no corresponding provisions in the patent law chapter of the Code.

Finally, Article 1251 as part of the 'General Provisions', regulates the defense of personal non-property rights of the author (inventor) by listing the claims to which the author is entitled in case of violation of such rights. The most basic claim is certainly the recognition of the personal rights, *e.g.,* of the right of authorship or the right to the name. Other claims concern termination of the violation and compensation of the moral damage or publication of the decision of the court.

According to Article 1248, Point 1, disputes connected with the defense of violated or disputed intellectual rights are considered and decided by the courts. Once again that provision is repeated and somewhat extended by Article 1406 as part of the patent law chapter: disputes concerning the defence of patent rights, and in particular*, disputes concerning the authorship of an invention,* shall be considered by a court.

In sum, the permanent interplay between the general provisions of the inventor's personal rights in Chapter 69 and the corresponding special provisions in the patent law Chapter 72 makes that one always has to check whether a specific rule of law as contained in the 'General Provisions' is repeated or modified, extended or restricted by the 'special' provisions in the patent law chapter.[65] It remains to be seen whether from a doctrinal and practical point of view that legislative method can be convincing and whether it only makes application and interpretation of a specific sector of law more burdensome and difficult (such as patent law), insofar in contrast to the 'compact' previous regulation in the Patent Law of 1992. If the relevant general provisions were absent, in many situations, indeed, almost nothing would be lost. This is true with respect to at least the personal rights of the inventor.

[65] The same is true in case of the other intellectual property rights, in particular copyright; for the latter field of law *see* DIETZ, *supra* note 6, at 214 *et seq.*

6. Concluding Remarks

Similar analysis of the interplay between the 'General Provisions' of Part Four of the Civil Code RF and corresponding complexes of provisions in the special patent law chapter of that Code would more or less lead to the same result, as in the case of the personal non-property rights of the inventor, as just demonstrated. That is true, *e.g.*, for the provisions on the content and effects of exclusive rights (Article 1229 on the one hand and Article 1358 on the other hand); on the period of protection (Article 1230 on the one hand and Article 1363 on the other hand); on state registration of protected results of intellectual activity (Article 1232 on the one hand and Articles 1353 and 1393 on the other hand); and on legal transactions (assignments and licences) concerning protected rights (Articles 1233 *et seq.* on the one hand and Articles 1365 *et seq*. on the other hand).

As a result, what the new codification has gained in terms of more transparency and stricter logical order in the inner and outer arrangement of the provisions seems to have lost out by the seldomly convincing and burdensome overlap between Chapter 69 on 'General Provisions' and Chapter 72 on 'Patent Law.' There remain great doubts whether such kind of codification of intellectual property law means real progress in legislative techniques. That almost no countries have followed the example of a comprehensive codification of intellectual property within their Civil Code[66] could find some explanation here.

[66] *See* the examples given by DITC [DIETZ], *supra* note 11, at 17 *et seq*.

The Quiet Revolution in American Copyright Law

Paul Goldstein

A quiet revolution is stirring in American copyright law. Historically, copyright law requires anyone whose use of a copyrighted work comes within one or more of the copyright owner's exclusive rights to first obtain the owner's permission to make the use. Yet, developments in US law over the past decade have cast this central precept into question and may portend similar developments in other countries in both the civil and common law world.

In 1998, as part of the Digital Millennium Copyright Act, the US Congress introduced several 'safe harbors' to insulate Internet service providers from monetary liability for their copyright infringements;[1] these safe harbors reverse copyright's usual operation by effectively freeing Internet service providers to copy and display copyrighted works on their sites, and by shifting to the copyright owner the burden of requesting its work's removal if it is to obtain even partial relief. An Orphan Works bill introduced in Congress in May 2006 would limit the remedies available to copyright owners against copyright users who could not reasonably locate them to obtain a license.[2] Also in May 2006, the US Supreme Court handed down *eBay Inc. v. MercExhange*,[3] a patent decision that asserted in *dicta* that copyright injunctions are to be granted not automatically – as has been common practice – but rather as a matter of equitable discretion. (Withholding injunctive relief effectively frees the infringer to use the copyrighted work, subject in the usual case only to payment of a sum comparable to what the infringer would have paid had it first sought out the copyright owner and negotiated a license.)

Elements of this revolution have long been a feature of American copyright law. Fair use, statutory exemptions and compulsory licenses in American copyright law – like fair dealing exemptions and equitable remuneration in other countries – similarly contravene the 'ask before you take' principle by permitting otherwise prohibited uses or subjecting them only to an obligation of reasonable compensation. Characteristically, however, such limitations will be confined to narrowly defined classes of works and types of uses to ensure that creators will enjoy adequate incentives to produce literary and artistic works overall. What is revolutionary about the emerging trend in US legislation and case law is not so much that it entitles copyright users to take works without permission, as that it extends this immunity to all classes of works, and in broad economic settings.

Legal revolutions are not necessarily good – nor necessarily bad. Indeed, the three examples – safe harbors, orphan works and discretionary injunctions – repre-

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1 Pub. L. No. 105-304, 112 Stat. 2860 (Oct. 28, 1998).
2 Orphan Works Act of 2006, H.R. 5439 109th Cong. 2d Sess. (May 2, 2006).
3 *eBay Inc. v. MercExhange,* 126 S. Ct. 1837 (2006).

sent salutary responses to difficult policy dilemmas. Internet service providers, mainstays of the new information economy, could not operate if they had to obtain permission for each of the countless copyrighted works that daily stream through their systems. A documentary film that needs to borrow from other works may go unmade because of the practical impossibility of locating the relevant copyright owners, even though the owners, if they knew of the proposed use, would gladly consent to it. Injunctions can be economically inefficient if they impose an extortionate tax on users who unwittingly include a copyrighted work in a larger, noninfringing work. But the fact that hard problems justified these solutions is no guarantee that in the future these solutions will not be applied to problems that do not in fact need solving, nor that they will not produce more mischief than good.

1. Safe Harbors

The revolutionary impact of the 1998 Digital Millennium Copyright Act is usually associated not with Title II, creating safe harbors for Internet service providers, but with Title I, which implements certain obligations imposed by the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty by barring the circumvention of technological measures that limit the use of copyrighted works. In fact, Title I is neither revolutionary nor is it about copyright. The anticircumvention provisions essentially track the method of trade secret law, encouraging owners of valuable information to build walls around their treasure by imposing liability on anyone who would breach those walls. And, although Title I is codified in the same general title as the Copyright Act, it is in no respect part of US copyright law. Indeed, its methodology – relying on technological measures rather than legal boundary lines to protect copyrighted works – is the very antithesis of copyright.

Title II's safe harbors[4] immunize the qualifying activities of defined 'service providers' – providers of 'online services or network access, or the operator of facilities therefore,' as well as conduits such as those providing telephony[5] – from the monetary relief that would otherwise be recoverable under theories of direct, contributory and vicarious copyright liability. The provisions also limit injunctive relief against activities falling within the prescribed safe harbors by requiring courts to weigh factors bearing on the relative technical and economic burdens of granting or denying relief,[6] and requiring service providers, upon receipt of notice from the copyright owner, to remove or block access to materials identified by the owner as infringing.[7]

Section 512 protects five categories of online activity: transitory digital network communications (effectively, the activities of conduits or passive carriers[8]); system

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4 The provisions are codified at 17 U.S.C. §512 (2001).
5 17 U.S.C. §512(K)(1)(A),(B).
6 17 U.S.C. §512 (j)(2).
7 *See* generally, GOLDSTEIN, Goldstein on Copyright §8.3.2.2(b)(2008).
8 17 U.S.C. §512 (a).

caching;[9] storage of information at the direction of users;[10] information location tools;[11] and specified nonprofit activities of educational institutions.[12] The provisions prescribe two general conditions for enjoyment of the safe harbors: the service provider must accommodate 'standard technical measures,'[13] and the service provider must implement – and inform the service provider's subscribers of – a policy that requires the termination of service to repeat infringers in appropriate circumstances.[14] However, it is not a condition to safe harbor protection that the service provider monitor its service or affirmatively seek out facts that indicate infringing activity.[15]

A comparison of the remedies available to copyright owners before and after enactment of section 512 will indicate the seismic nature of the shift produced by the safe harbors. Before the safe harbors, copyright owners could extract from Internet service providers the full battery of monetary relief, including (if copyright registration was timely) statutory damages and attorney's fees; they could also in license negotiations employ as leverage the prospect of injunctive relief. The safe harbors remove the threat of monetary relief and reduce the leverage of injunctive relief. Even more striking is a comparison of transaction burdens before and after enactment of the safe harbors. Before safe harbors, Internet service providers would be required to seek out and obtain from copyright owners permission to use their works. Now that they have safe harbors in place, these potential infringers no longer need to seek out copyright owners; indeed, it is copyright owners who must seek out infringers to request removal of their works from the service providers' systems.

For several years after its enactment, section 512 provided a smoothly functioning *modus operandi* for copyright owners and Internet service operators alike. However, more recent developments, which find service providers disseminating massive quantities of infringing content to the public, probably fall outside the intentions of the provisions' framers, and are beginning to test the premises of the safe harbor regime.[16] These developments also highlight an undesirable feature of any system that places on copyright owners rather than copyright users the burden of initiating a copyright transaction. Except in the case of the massive and overwhelming online dissemination of their works, large copyright owners like motion picture studios and major record labels operate on a scale that may be able absorb into overhead the costs of monitoring Internet sites for infringement and issuing the required notices. By contrast, individual authors and other small-scale copyright owners will rarely possess the resources needed to monitor Internet sites, with the result that, since copyright users no longer have a legal reason to seek them out for

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[9] 17 U.S.C. §512 (b).
[10] 17 U.S.C. §512 (c).
[11] 17 U.S.C. §512 (d).
[12] 17 U.S.C. §512 (e).
[13] 17 U.S.C. §512 (i)(1)(B).
[14] 17 U.S.C. §512 (i)(1)(A).
[15] 17 U.S.C. §512 (m)(1).
[16] *See, e.g.*, *Viacom Int'l, Inc. v. YouTube, Inc.* 1:07cvZ103-LLS, S.D.N.Y., filed 3-13-2007.

licenses as they had in the past, these copyright owners may enjoy no relief at all against the unauthorized exploitation of their works on the Internet.

2. Orphan Works

It is an inescapable fact in a world where copyright terms are long and copyright owners numerous that the owners of a great number of copyrighted works will be hard to locate. The lack of copyright formalities, and the consequent paucity of copyright registrations, contribute to the difficulty of identifying a work's current owner. Even if a work's original owner can be identified, the fact that ownership may have descended through two or three generations means that it will be vested in heirs or legatees, few of whom will even know that they own a fractional interest in a copyright. The dilemma for public policy is that the expense of identifying these dispersed and often obscure copyright owners – many of whom would gladly license the use if only they could be found – will often be greater than the benefits to be derived from the use, thus requiring the potential user to choose between foregoing the use, or making it and facing the risk of some day being held answerable for monetary and injunctive relief.

The US Register of Copyright's 2006 *Report on Orphan Works* – a model of diligence, insight and judgment for a project of this kind – surveys the policy problem, its legal background and the proposed solutions, and concludes with legislative recommendations that would modify copyright remedies against users who reasonably try, but fail, to identify the copyright owner. Other approaches are of course possible. As Stef van Gompel has observed in his global overview of the subject, copyright collecting societies can, and do, play an important role in meliorating the problem of orphan works,[17] although in the United States the narrowness of their focus makes them a comparably less satisfactory solution. Blunter (and more efficient) measures, such as conditioning the subsistence of copyright on the copyright owner's periodic re-registration of the work, are also theoretically possible but would, to the extent that they condition copyright on compliance with formalities, run afoul of Article 5(2) of the Berne Convention, 1971 Paris Act, when applied to Berne works of foreign origin.

The US Copyright Office proposal provides that if, before undertaking its use of a copyrighted work, the infringer performed a 'good faith, reasonably diligent,' but ultimately unsuccessful, search to locate the copyright owner and, over the course of its use, the infringer attributed the work to the author and copyright owner ('if possible and appropriate under the circumstances') the copyright owner's eventual remedies will be less than those ordinarily available. In the case of monetary relief, the copyright owner would be limited to reasonable compensation for the use; if the infringement is noncommercial – and if the infringer promptly stopped infringing – monetary relief would be remitted entirely. Although injunctive relief would as a rule remain available, it would be withheld in cases where the infringer had made a

[17] GOMPEL, Unlocking the Potential of Pre-Existing Content: How to Address the Issue of Orphan Works in Europe? 38 IIC 669 (2007).

derivative work based on the copyrighted work, incorporating new expression of its own; again, though, the infringer would be required to provide attribution and pay reasonable compensation. '[I]n all other cases, the court may impose injunctive relief to prevent or restrain the infringement in its entirety, but the relief shall to the extent practicable account for any harm that the relief would cause the infringer due to the infringer's reliance on this section in making the infringing use.'[18]

The Copyright Office proposal is comparable to statutory and compulsory licenses already in the 1976 Copyright Act. However, the proposal differs from the usual compulsory license in covering *all* forms of uses of *all* kinds of works, and not just, for example, mechanical licenses for musical works or retransmission licenses for cable systems. (This is not to say that all types of works would equally bear the burden of the proposal. Photographs, which at least under existing technologies are hard to index and thus difficult for their owners to make reasonably locatable, would be a perpetual victim of the proposal.)

The soundest legal rules are those that trigger the alignment of institutions and resources to minimize the private and social costs of achieving the rule's ultimate object. Thus, the Register's Report no more contemplates that copyright owners will remain passive in the face of reduced remedies than it envisions that copyright users will forgo the reasonably diligent searches that will reduce the risk of infringement. Instead, the Register's proposal would motivate copyright owners to invest, and participate, in the formation and maintenance of registries that would make them easily locatable through a reasonably diligent search since, by doing so, they will increase the number of licenses entered into, and will preserve their full range of remedies against the less diligent users that fail to use the registry. (Entrepreneurs might invest in digital scanning and recognition technologies that could introduce identifiability even into the murky domain of photography.) There is little doubt that the Register's Report contemplated this increase in efficiency as a direct result of its proposed legislation.[19]

However desirable its results, there is little doubt that, as measured against copyright law's traditional principles, the Register's Orphan Works proposal is revolutionary. Unlike existing law, which gives copyright owners the full range of monetary and coercive relief against infringers, the proposal would limit monetary relief to reasonable compensation (and remit it entirely in the case of noncommercial works), and would subject injunctive relief to judicial modification in any case (and eliminate it entirely in the case of infringing derivative works). Burdens of transacting will shift, too, although somewhat less dramatically than in the case of section 512's safe harbors. Under existing law, the copyright user must seek out the copyright owner and bear the risk of loss in the event that it fails to find the owner but nonetheless proceeds to use the work. If the proposal becomes law, the user would still bear the burden of seeking out the copyright owner, but could discharge that

[18] Register's Report 127. The basic principles of the Copyright Office proposal were subsequently embodied in H.R. 5439, Orphan Works Act of 2006, 109th Cong. 2d Sess. (May 22, 2006).

[19] Register's Report 93.

burden by making a reasonably diligent, even if unsuccessful, search. As a result, the copyright owner would for the first time bear the burden of making itself locatable through a reasonably diligent search by users, presumably through industry registries.

3. Discretionary Injunctions

Section 502(a) of the 1976 Copyright Act authorizes a federal court in a copyright action to grant 'final injunctions on such terms as it may deem reasonable to prevent or restrain infringement of a copyright.' Although, according to the pertinent legislative history, the provision 'reasserts the discretionary power of courts to grant injunctions,'[20] American courts have in fact almost always awarded copyright owners injunctive relief unless it appears that the defendant is unlikely to infringe in the future.[21] One reason for this liberality in granting copyright injunctions is that copyrights are hard to value, and an injunction can make the copyright owner economically whole without the expense of calculating damages and profits. Also, if the infringement involves a yet-unpublished work, injunctive relief ensures the copyright owner's continued control over the critical decisions whether and when the work should first be exposed to the public.

Automatic injunctive relief is rarely problematic in cases where the defendant has copied wholesale from the plaintiff's work and added no original expression of its own since an injunction will in such cases deprive the public only of content legitimately under the copyright owner's control. But injunctive relief may be perceived as problematic when granted against works that draw only in part from the copyrighted work and contain substantial value of their own – for example, a feature-length motion picture innocently adapted from a copyrighted short story. Although courts will, when possible, tailor the injunction to require only that the infringing matter be eliminated,[22] if the infringing and noninfringing material are closely intertwined – as will typically be the case with derivative works such as motion pictures and translations – courts will enjoin dissemination of the entire infringing work even though this will prevent the infringer from exploiting its own, independently copyrighted, contribution.[23]

The problem with injunctions against works that only partially infringe a plaintiff's copyright is that they enable the copyright owner in settlement negotiations to extract not only the value of the infringing portion of the defendant's work, but also

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[20] H.R. Rep. No. 1476, 94th Cong. 2d Sess. 160 (1976).

[21] *See, e.g.*, *Harolds Stores, Inc. v. Dillard Dept. Stores, Inc.*, 82 F.3d 1533, 1555-1556 (10th Cir. 1996); *Shapiro, Bernstein & Co. v. 4636 S. Vermont Ave., Inc.*, 367 F.2d 236 (9th Cir. 1966).

[22] *See, e.g.*, *Southern Bell Tel. & Tel. Co. v. Assoc. of Tel. Directory Publishers*, 756 F.2d 801 (11th Cir. 1985).

[23] *See, e.g.*, *Sheldon v. Metro-Goldwyn Pictures Corp.* 309 U.S. 390, 396 (1940) (affirming apportionment of profits recovered by plaintiffs to one-fifth of the net profits earned by the motion picture – 'only that part of the profits found to be attributable to the use of the copyrighted material as distinguished from what the infringer himself has supplied' – but not disturbing the injunction against performance of the entire motion picture).

some part of the work's value that is attributable to the defendant's independent investment. An injunction in these cases gives the copyright owner's exclusive rights a greater scope than is justified by the copyright owner's investment, and may inhibit others from investing independent effort in developing original works. The rule that innocence is no defense to copyright infringement further aggravates the harsh effects of an injunction in these cases.

Although the US Supreme Court has at least twice suggested in *dicta* that copyright injunctions might properly be withheld in cases that raise equities comparable to those presented by partially infringing works,[24] the Court has only once, in *Dun v. Lumbermen's Credit Assn,*[25] explicitly ruled that the trial court should in such a case withhold injunctive relief and award the copyright owner only monetary relief for the infringing portions of the defendant's work. In *Lumbermen's Credit* the defendant had copied only a small amount of copyrighted material from the plaintiff's work, and the Court affirmed the lower court's ruling that 'the proportion is so insignificant compared with the injury from stopping appellees' use of their enormous volume of independently acquired information, that an injunction would be unconscionable. In such cases the copyright owner should be remitted to his remedy at law.' The Court thought that 'the discretion of the court was wisely exercised in refusing an injunction and remitting the appellants to a court of law to recover such damage as they might there prove that they had sustained.'[26]

Despite this ringing proclamation from the US Supreme Court that injunctions should be withheld in cases where the harm of injunctive relief to the defendant substantially outweighs its legitimate benefit to the copyright owner, lower federal courts have not, in the century since *Lumbermen's Credit* was decided, adopted this approach. This reluctance may ease, however, since the Supreme Court's 2006 decision in a patent case, *eBay, Inc. v. MercExchange L.L.C.,*[27] for the Court there rested its holding that injunctions are not automatically available in patent cases on the assertion that 'this Court has consistently rejected invitations to replace traditional equitable considerations with a rule that an injunction automatically follows a determination that a *copyright* has been infringed',[28] citing not only *Lumbermen's Credit*, but also the two cases in which the Court made the suggestion in *dicta*.

Whether or not the Supreme Court has 'consistently' rejected automatic copyright injunctions, the fact that the Court *says* that it has cannot help but influence lower federal courts which face the question in the future, and it seems reasonable to anticipate that these courts will for the first time regularly withhold injunctions in cases where the cost of the remedy to the defendant substantially outweighs its legitimate benefit to the copyright owner. Like section 512's safe harbors, and like the proposed orphan works legislation, such a change would shift the burden of

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[24] *New York Times Co., Inc. v. Tasini*, 533 U.S. 483 (2001); *Campbell v. Acuff-Rose Music, Inc*. 510 U.S. 569, 578 n. 10 (1994).
[25] 209 U.S. 20 (1908).
[26] 209 U.S. at 23-24.
[27] 126 S.Ct. 1837 (2006).
[28] 126 S.Ct. at 1840 (emphasis added).

remedies from infringers to copyright owners. Where copyright owners have historically enjoyed automatic injunctive and monetary relief, in the future they may have to be satisfied with a monetary award alone. Similarly, where unlicensed copyright users once faced the almost certain risk of an injunction that captured the value that they themselves had added to a work, that risk will diminish in a future where they can expect to be held accountable for little or no more than they would have paid for a negotiated license. (If the infringement is found to be willful, they can continue to expect to be held liable for attorney's fees and an increased award of statutory damages in cases where those remedies are available.)

Unlike the rules for safe harbors and orphan works, which operate automatically, the new direction in copyright injunctions contemplates that they will be granted or withheld only in the discretion of the court. To the extent that courts exercise their discretion prudently, with careful attention to the economic and behavioral impact of the decision to grant or deny relief, this trend may introduce new measures of both fairness and efficiency into American copyright law. So, for example, because the denial of injunctive relief inescapably sacrifices the copyright owner's control over the timing and circumstances of his work's publication, courts must be careful, in considering the harm suffered by the copyright owner, to assess all of the harms, reputational as well as economic, that may be inflicted as a consequence of unrestricted use; only rarely, if ever, is the balance likely to tilt against injunctive relief for the vital right of first publication.

4. Extending the Revolution?

If any single fact is evident from this summary of three germinal developments in American copyright law, it is that copyright law's remedies are no less important than are its exclusive rights in defining the copyright system's most foundational elements. The decision to withhold or to modify monetary relief in the case of the Internet safe harbors and the orphan works proposal has, and will, dramatically shift the burden of seeking out a contract partner from copyright users, on whom the burden has traditionally rested, to copyright owners. Reducing the occasions for the grant of copyright injunctions, as contemplated by the Supreme Court's *eBay* decision and also by the orphan works proposal, can be expected to produce similar dislocations.

As desirable as the Internet safe harbors, orphan works proposal and discretionary injunctions may be in the particular context that gave rise to them, lawmakers in the United States and elsewhere should take care before extending the remedial impulse that underlies these legal innovations to other quarters. These three innovations have in common both a high perceived value of the copyright uses in question, and the unusually high transaction costs of seeking and negotiating licenses. In the case of section 512's safe harbors, it was the unprecedented aggregate value of daily Internet uses, and the disabling scale and pace of these uses, that justified this extraordinary measure. In the case of orphan works, it is the high value of documentary, archival and scholarly uses of copyrighted works, as compared to the probable (and unusual) indifference of copyright owners in the circumstances – as well as the

high transaction costs of locating owners – that justifies the modification of remedies. And, in the case of injunctions, it will be the comparatively high value added by independent, non-infringing elements of the infringer's work and the transaction costs (viewing extortionate demands as a transaction cost) of negotiating for the use of infringing elements that will justify the rare exception from the general availability of injunctions to prevailing copyright owners.

Calls to extend this remedial revolution to other areas of copyright use should not overlook the significant role that information technologies can play in reducing notionally insuperable transaction costs. Technological advances such as digital storage, transmission and manipulation may have opened up vast new sources of value on the Internet, but the same or related technologies can also be deployed to reduce transaction costs to levels at which remedial innovation becomes unnecessary. Digital tagging of newly-produced copyrighted works to include so-called copyright management information can enable low-cost licensing regimes and, to some extent, tagging and digital fingerprinting can be incorporated in older – even orphan – works. The fact that when this revolution in remedies began, a decade ago, copyright owners were perceived to be better placed than copyright users to monitor copyright infringement does not mean that this is necessarily so today, or that it will be so in the future.

Some Remarks On the Third Revision Draft of the Chinese Patent Law

Shoukang Guo

1. Foreword

Sixty four years ago, when I began to study law at university, there was no Patent Law in China and, of course, also no special course on Patent Law in the University curriculum. Even the legal terms of intellectual property or industrial property were quite unfamiliar to lawyers and in the legal academic circle.

Zhuanli (monopoly of interest), though appeared in ancient Chinese classics, was actually translated from the term "patent" in western countries in the mid-1850s. Hong Rengan, the premier of the Tai Ping Heavenly Kingdom (1851-1864) and a cousin of the Kingdom's leader Hong Xiuchuan, was the first person who recommended that China should adopt a patent system like that in the western countries. However, due to the underdevelopment of the market economy and technology as well as war and political turmoil before 1949, it lacked the necessary conditions and there was no urgent need for the establishment of patent system in China. After the founding of the People's Republic of China, under a rigid plan economy system, patent law was not necessarily to be promulgated. The Central People's Government enacted Provisional Regulations for the Protection of Rights of Invention and Patent Rights in 1950 and four patent rights were granted according to those Regulations, but even before the 1963 Regulations on Awards for Invention were promulgated, under which inventors could only obtain awards, the Provisional Regulations of 1950 actually stopped to be applied.

Only on the eve of the adoption of the new policy of reform and opening up to the outside world, the central authority indicated that 'China should establish a patent system'. However, as soon as the preliminary draft of the Chinese Patent Law was prepared and distributed for comment and review, a strong debate emerged especially among many important governmental organizations. Two main points were provided for opposing the enactment of patent law in China: firstly, patent law emerged in capitalist countries and, in China, most enterprises, companies, scientific institutions and other organizations belong to the State, to the people, and the exclusive right of a patent does not suit or conform with the socialist nature of China; secondly, as China is a developing country and a big technological gap exists between it and developed countries, a patent law will essentially protect the patent rights of foreigners, and foreign patents will occupy, even dominate, the technological market of China

During the debate, through serious study of international and foreign experiences for drafting of Chinese Patent Law, we learned a lot and got a lot of assistance from international organizations, especially the World Intellectual Property Organ-

ization and its Director General, Dr. Arpad *Bogsch*, the European Patent Office, the German Patent Office and its President Prof. Dr. Eric *Heusser*, and Patent Offices from many other countries, as well as from academic institutions, especially the Max-Planck Institute for Industrial Property, Copyright and Competition (now, the Max-Planck Institute for Intellectual Property, Competition and Tax Law) and its Managing Director, Prof. Dr. F. K. *Beier* and Prof. Dr. Joseph *Straus*. Finally, the debate had a positive conclusion and the Chinese Authority decided that China should have a modern Patent Law, for patent law shall not be monopolized by capitalist countries and could be beneficial to socialist China. Also, fundamentally speaking, from a long run view, patent law is very helpful to encourage invention-creation, to foster the spread and application of invention-creation, and to promote the development and innovation of science and technology.

After a long time and careful preparation, the Patent Law of the People's Republic of China was adopted at the 4th Meeting of the Standing Committee of the Sixth National People's Congress on March 12, 1984. In conforming with the new international and domestic developments, experiences and requirements in the patent field, the first revision of the Chinese Patent Law was approved by the Decision of the Standing Committee of the Seventh National People's Congress on Amending the Patent Law of the People's Republic of China at its 27th Meeting on September 4, 1992. In order to provide the necessary requirements for China's accession to the World Trade Organization, a second revision of the Chinese Patent Law was approved by the Decision of the Standing Committee of the Nine National People's Congress on Amending the Patent Law of the People's Republic of China on its 17th Meeting on August 25, 2000. The purpose of the last Revision on 2000 is wholly to conform with the TRIPS requirements.

However, along with the more than 20 years implementation, the Chinese Patent System developed rapidly and the domestic and international economic and technological circumstances changed a lot.

Before the implementing of the Chinese Patent Law in 1985, no patents and patent applications existed in the People's Republic of China. According to the latest statistics published at the beginning of 2008, the State Intellectual Property Office received 694,153 patent applications of the three types of patents (patent for invention, patent for utility model and patent for industrial design) in 2007, among which 586,734 or 84.5% were filed by domestic applicants and 107,419 or 15.5% were from foreign applicants. In 2007, 351,782 patents were granted by the State Intellectual Property Office, among which, 301,632 were granted to domestic applicants and 50,150 were granted to foreign applicants. Since April 1, 1985 up to the end of 2007, the total number of patent applications filed with the State Intellectual Property Office was 4,028,520 and the total number of patents that were granted was 3,089,286.[1]

From domestic and international perspectives, a lot of changes and rapid developments emerged in economic and technological fields, many issues still remain to be resolved in the current Patent Law.

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[1] China Intellectual Property News, in Chinese, January 11, 2008, 1.

A Compendium of the National Intellectual Property Strategy was released by the State Council on June 5, 2008. The release of the Compendium also marks the formal launch of the implementation of the national intellectual property Strategy. The Compendium is to set the basis for the proposed revision of China's intellectual Laws, including the Patent Law. Mr. Hu *Jintao*, the President of the People's Republic of China, indicated that 'pursuant to the principles of performing commitment, adapting to the national situations, consummating systems and providing active protections, to perfect the intellectual property laws and regulations matrix with the adaptation with China's economic and social development and the adaptation with the international trend of the protection for intellectual property rights'.

Since April 2005, the State Intellectual Property Office started the preparation for the third revision of Chinese Patent Law. The State Intellectual Property Office released ten research projects to the society. Up to February 2006, the project teams composed of experts and scholars with universities and colleges, scientific research institutions, governmental authorities, judicial authorities and social agencies finished 40 special topic research reports amounting to 2.6 million Chinese characters. Since March 2006, the State Intellectual Property Office convened a number of expert symposia and meetings for soliciting opinions with reference to various problems identified during the inspections of the Standing Committee of the National People's Congress on the implementations of the Patent Law, and seriously discussed and analyzed various proposals. In August 2006, the State Intellectual Property Office put forward a draft for soliciting opinions of the third revision of the Patent Law (Draft for Soliciting Opinions). Two-hundred notifications for soliciting opinions had been sent to relevant competent governmental and judicial authorities, local intellectual property administrative departments, enterprises, universities and colleges, scientific research institutions, patent agencies, experts and scholars. At the same time, the Draft was provided on the website of the State Intellectual Property Office in order to solicit opinions inside and outside of China. From August to October 2006, the State Intellectual Property Office presided over a number of symposia for listening to the opinions and suggestions about the Draft.

Under the 'open-door legislation' policy, the State Intellectual Property Office sent a special delegation to Japan and the United States of America for research and investigation in September 2006. The delegation conducted broad contacts and deep discussions with relevant governmental and non-governmental organizations and some enterprises of these two countries, in order to learn about the useful experiences of foreign countries.

Later, the State Intellectual Property Office summed up and generalized the feedback opinions from respective circles, modified and perfected the Draft and provided the Draft for Comments to the State Council on December 27, 2006. A State Council executive meeting, presided by Premier Wen Jiabao, on July 30, 2008 deliberated and approved the Draft for Comments of the Chinese Patent Law. Under the Legislation Law, the State Council will submit the Draft(hereafter will be mentioned as the Draft) to the Standing Committee of the National People's Congress for three reads, The final approval is expected in the first half of 2009.

The Draft for Comments consists of 82 Articles, divided into 8 Chapters: Chapter 1, General Provisions (Article 1 to Article 22), Chapter 2, Requirements for Grant of Patent Right (Article 23 to Article 26), Chapter 3, Application for Patent (Article 27 to Article 34), Chapter 4, Examination and Approval of Application for Patent (Article 35 to Article 42), Chapter 5, Duration, Cessation and Invalidation of Patent Right (Article 43 to Article 48), Chapter 6, Compulsory License for Exploitation of Patent (Article 49 to Article 58), Chapter 7, Protection of Patent Right (Article 59 to Article 80) and Chapter 8, Supplementary Provisions (Article 81 and Article 82).

The following are some remarks and analyses of the Draft for Comments, which may be of interest to foreigners.

2. Absolute Novelty

According to the current Patent Law of the People's Republic of China as well as those of most countries in the contemporary world, any invention or utility model for which patent right may be granted must posses novelty, inventive step and practical applicability.

Under Article 22(2) of the Patent Law of the People's Republic of China, novelty means that, before the date of filing, no identical invention or utility model has been publicly disclosed in publications in the country or abroad or has been publicly used or made known to the public by any other means in the country, nor has any other person filed previously with the Patent Administrative Department under the State Council and application which described the identical invention or utility model and was published after the said date of filing. Under Article 23 of the Patent Law of the People's Republic of China, any design for which patent right may be granted must not be identical with and similar to any design which, before the date of filing, has been publicly disclosed in publications in the country or abroad or has been publicly used in the country, and must not be to conflict with any prior right of any other person. In other words, according to the current Patent Law, different territorial scopes of the prior art and the prior design of different categories have been provided: the prior art and the prior design that are published in the form of publication is world wide while the prior art and the prior design that are published via public use or any other means is merely domestic. This is usually to denote the novelty in worldwide as absolute novelty and the domestic novelty as relative novelty.

During the initial drafting of the Chinese Patent Law in the 1970s-1980s, it seemed impossible to check or prove whether the identical inventions or utility models were publicly used or made known to the public by any others means abroad, or whether an identical or a similar design was used abroad. That is the basic reason why the current Patent Law of the People's Republic of China adopted relative novelty for the requirement of patentability for invention, utility model and design, which are publicly used or made known to the public by any other means abroad. However, along with the trend of the increasing economic globalization and the dramatic development of science and technologies, especially the rapid spread of internet, the border between publication disclosure and non-publication disclo-

sure is more and more vague; it therefore has less and less practical significance and maneuverability to restrict the prior art and prior design disclosed via non-publication means within the territory of China. In addition, I believe that, even at the initial drafting of the Patent Law, although it is impractical for the examiners to search and prove the identical invention and utility model or identical or similar design publicly used or made known to the public by any other means abroad, the foreign patentee or anyone else may provide evidence to prove that there are exactly identical prior art or identical or similar designs disclosed via non-publication means anywhere outside China. In the above-mentioned situation, it shall be unreasonable to grant a patent that someone else has proved a identical invention or utility model, or identical or similar design has been publicly used or made known to the public by any other means somewhere outside China. Otherwise, more importantly, to allow the technologies publicly known in a foreign country via public use, public sale or other means to be granted the patent right in China does not help encourage real and advanced invention-creation. That is why, within the international harmonization of the patent system, nowadays patent laws in the majority of the countries in the contemporary world are of no territorial restriction to the prior art and prior design.

Therefore, the Draft proposes to abolish the territorial restriction on the prior art and the prior design, and adopts the general absolute novelty requirement like most countries, especially western industrialized countries, in the contemporary world. The Draft stipulates: 'Novelty means that, the invention or utility model shall neither belong to the prior art…' and 'The prior art referred to in this Law means any technology known to the public before the date of filing by way of public disclosure in publications, public use or any other means in this country or abroad'. It also provides: 'Any design for which patent right may be granted shall neither belong to the prior design…'; and 'The prior design referred to in this Law refers to any design known to the public before the date of filing by way of public disclosure in publications, public use or any other means in this country or abroad'.[2]

3. Parallel Importation

Parallel importation is closely connected with the exhaustion of patent rights, which varies quite differently in the Patent Laws of many countries. Mainly speaking, there are three different kinds of attitudes: national exhaustion, adopted by the United States of America; regional exhaustion, adopted by the European Union; and international exhaustion, adopted by most developing countries. Under national exhaustion, parallel importation is absolutely prohibited. Under regional exhaustion, parallel importation is permitted among the different countries within European Union, but prohibited between European Union and any other countries outside EU. Under international exhaustion, parallel importation is permitted.

During the Uruguay negotiation, there were strong debates on the issue of exhaustion of patent right and parallel importation. As *Gervais* indicated: 'Exhaus-

[2] Article 23 and 24 of the Draft for the Third Revision of the Patent Law of the People's Republic of China.

tion was one of the difficult issues during the TRIPS negotiation'. In addition, 'WTO that supported national exhaustion during the TRIPS negotiation (including Switzerland and the United States) tries to enshrine the principle in the Agreement, while others (including Australia, Brazil, Hong Kong, India and New Zealand) defended so-called "international exhaustion" or, at least, the freedom for each WTO member to decide'.[3] Finally, a temporary compromise was reached in Article 6 of the TRIPS Agreement, which provides that: 'For the purposes of dispute settlement under this Agreement, subject to the provision of Articles 3 and 4 nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights'.

Therefore, each Member of the TRIPS Agreement is allowed to adopt a flexible position towards the exhaustion of a patent right. The Declaration concerning the TRIPS Agreement and Public Health that was approved by the WTO at Doha in 2001 also reiterated that each Member had the right to decide at its discretion its position in terms of the issue of exhaustion of intellectual property right. Up to now, there is still big gap between China's capacity in scientific research and those of the developed countries, patent rights in the hi-tech field are mostly owned by foreign patentees and the industrial development in China still depends on the import of foreign technologies to a great extent. Thus, it is proposed in the Draft for Comments to use the flexibility given by the TRIPS Agreement to each Member and allow the parallel import in the patent field. On the other hand, parallel importation will enable China to import from foreign countries the patented medicines which China is unable or insufficient to manufacture so as to resolve the public health in China.

Thus, the Draft for Comments provides in Article 74 the following: 'Where, after the sale of a patented product that was made by the patentee or with the authorization of the patentee, or of a product that was directly obtained by using the patented process, any other person uses, offers to sale, sells or imports that product', this shall not be deemed as infringement of the patent right. Article 75 provides: 'Where any person manufactures, uses, or imports a patented medicine or a patented medical apparatus solely for the purposes of obtaining and providing the information needed for the administrative approval of the medicine or medical equipment, and any person manufactures, imports or sells a patented medicine or a patented medical apparatus to the said person', this shall not be deemed as infringement of the patent right.

4. Foreign-Related Patent Agency

Since the latter part of the 19th century, it is internationally accepted that the laws of its member states may require that an agent be appointed for a foreigner, as an exception to the principle of national treatment. As *Ladas* indicated,

> [the granting of a patent was conditional upon compliance with certain formalities and the satisfaction of certain conditions calculated to define accurately the monopoly

[3] GERVAIS, The TRIPS Agreement: Drafting History and Analysis, 112, (2nd ed. 2003).

> granted to the inventor, and to protect the interests of the public. There was extreme diversity between the laws of the various countries as to what documents should be submitted with an application for a patent, and how these documents should be drawn and prepared. The formalities were determined by the peculiarities of language, habits, and administrative or judicial practice in each country. The conditions called for an appointment of resident agents by the non-resident applicant, for submission of the various documents and taking the different steps of procedure within fixed period and so forth.[4]

Thus, Article 2(3) of the Paris Convention for the Protection of Industrial Property provides:

> The provisions of the laws of each of the countries of the Union relating to judicial and administrative procedure and to jurisdiction, and to the designation of an address for service or the appointment of an agent, which may be required by the laws on industrial property are expressly reserved.

According, the current Patent Law provides:

> Where any foreigner, foreign enterprise or other foreign organization having no habitual residence or business office in China applies for a patent, or has other patent matters to attend to, in China, it or he shall appoint a patent agency designated by the Patent Department under the State Council to act as his or its agent.

In the original version of the Chinese Patent Law, which was promulgated in 1984, it is provided that the foreign-related patent agencies have to be appointed by the State Council. The Implementing Regulations of the Patent Law (original version) even listed the names of three foreign-related patent agencies in Beijing, Shanghai and Hong Kong. At that moment, very few patent agencies have the necessary conditions, including equipment, technique, personnel, expertise and foreign language, to do foreign-related patent application and protection. It is necessary to strictly limit the number of foreign-related patent agencies, which should be designated only by the State Council. But, the situation changed rapidly. During the revision of the Patent Law in 2000, the foreign-related patent agencies designated by the State Council were amended as to be designated by the State Intellectual Property Office. More and more agencies were designated to deal with foreign-related patent affairs by the State Intellectual Property Office.

Within 20 years, the patent system of the People's Republic of China developed very rapidly. According to statistics up to July 31, 2007, the All-China Patent Agents Association had more than 630 patent agencies as its group members and more than 4,700 agents as its individual members. Many of them had capacities to deal with foreign-related patent matters. An urgent need to revise the current provisions was widely recognized, in order to further promote the development of patent agency system and establish a fair competition environment. Thus, the Draft for Comments proposed to invalidate the designation of foreign-related patent agencies

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[4] LADAS, Patents, Trademarks, and Related Rights, 22 (1975).

and to allow all patent agencies to undertake the relevant business of patent applications and other matters in China entrusted by a foreign entity or individual.

In line with the increasing enhancement of China's strength in the economy and technologies, more and more Chinese enterprises have started to invest abroad and to participate in international competitions, and more and more patent applications to foreign countries will be imperative. However, Article 20(1) provides that where any Chinese entity or individual intends to file a patent application in a foreign country, it or he shall appoint a patent agency, designated by the Patent Administrative Department under the State Council *i.e.,* a foreign-related patent agency, to act as its or his agent. However, many foreign countries also require that a non-resident company or individual shall entrust a domestic agency or agent in those countries for application for a patent. Therefore, it would be quite cumbersome for this double designation, i.e., to designate a foreign-related patent agency in China and a patent agency or agent in that foreign country. So, the State Intellectual Property Office is of the opinion that the decision whether or not to entrust a Chinese patent agency for filing an application for a patent in a foreign country shall be left to the Chinese applicants. The Draft suggests revoking the provisions in Article 20(1) in order to facilitate the application of Chinese applicant for patent outside China.

5. Compulsory License

A compulsory license is a very important mechanism in the patent system of each country, especially for the developing countries. A compulsory license has significant and realistic meaning in preventing the patentee from exercising its exclusive right unreasonably, and in maintaining the interests of the country and the public as well as in promoting public benefits.

The original text of the Paris Convention for the Protection of Industrial Property of 1883 already contained a provision stating that, in the case of importation of patented Articles, the patentee remained under the obligation to exploit his patent in accordance with the laws of those importation countries. The Revision Conference of Brussels in 1900 added a more general provision concerning the non-working of a patent: Article 2 of the Additional Act adopted in Brussels. This regulation was elaborated further by the following Revision Conferences of Washington (1911), The Hague (1925), London (1934) and Lisbon (1958). At the Conference of the Hague, the provision was enlarged to include the regulation of legislative measures intended to prevent the abuses which might result from the exclusive rights conferred by the patent, abuses of which failure to work was cited as an example.[5] The Stockholm version of the Paris Convention in 1967 provided in its Article 5(2) that 'Each country of the union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.' Paragraph (4) of that same Article provided that '[a] compulsory

[5] BODENHAUSEN, Guide to the Application of the Paris Convention for the Protection of Industrial Property, 68 (1968)

license may not be applied for on the ground of failure to work or insufficient working before the expiration of a period of four years from the date of filing of the patent application or three years from the date of the grant of the patent, whichever period expires last' As Prof. Bodenhausen indicated:

> The period prescribed take into account the different patent laws of the member States, which may provide for the grant of patents with or without previous examination of the patent application as to substance. In countries without such examination it is quite likely that a patent will be granted within the first year after filing the application. In order to give the applicant more time to organize the exploitation of his patent, a compulsory license can then only be applied for after four years of having expired from the filing of the application. However, if, for example, because of the time involved in examining the application as to its substance, the patent is granted more than one year after the filing of the application, a compulsory license cannot be applied for until three years have expired from the grant of the patent.[6]

The Patent Law of China adopted the substantial examination for a patent for invention. In its original text of 1984, it is provided that the compulsory license can only be granted after the expiration of three years from the grant of the patent right.

However, the TRIPS Agreement provides in its Article 31(b) that compulsory license (use of patent without authorization of the right holder) 'may only be permitted if, prior to such use, the proposed user has made efforts to obtain authorization from the right holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time.' In conforming with this requirement, China added Article 51 in its version of 2000, because of preparing to accede the World Trade Organization. Article 51 provides that 'The entity or individual requesting, in accordance with the provisions of this Law, a compulsory license for exploitation shall furnish proof that it or he has not been able to conclude with the patentee a license contract for exploitation on reasonable terms and conditions.'

On the issue of a compulsory license, Article 31(b) of the TRIPS Agreement is an additional requirement added to, but not substituted for the relevant provision in Paris Convention. Experts usually indicate the above-mentioned interrelation as 'Paris-plus'. Unfortunately, the provision of expiration of three years after the grant of the patent right was cancelled in the 2000 version. Now, the Draft for Comments restore and improve the original provision as the Patent Administrative Department under the State Council may, upon the request of the entity which is qualified for exploitation, grant a compulsory license to exploit the patent, where the patentee of an invention or utility model, after the expiration of three years from the grant of the patent right, has not exploited the patent or has not sufficiently exploited the patent without a justified reason.

The World Trade Organization approved a Declaration regarding the TRIPS Agreement and Public Health, which provides that public health crisis, including the crisis of AIDS, tuberculosis, malaria or any other epidemic, shall constitute a national emergency or an extraordinary state of affair. Later, a Resolution regarding

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[6] *Id.*, at 72.

the Implementation of the TRIPS and Paragraph 6 of the Public Health Declaration was approved by WTO on August 30, 2003, which permits the Members to grant a compulsory license for other Members who have no or insufficient capability to manufacture the relevant medicines when facing public health issues and to manufacture and export those medicines to these Members, which therefore breaks through the restrictive provisions of Article 31 of the current TRIPS Agreement that the compulsory license should predominantly be used to supply the domestic market demands. On December 6, 2005, the general council of the World Trade Organization approved the Protocol on the Amendment to the TRIPS Agreement, which proposed to include the substantial contents of the above-mentioned Resolution into the TRIPS Agreement. Thus, the Protocol had been accepted and ratified by the Standing Committee of the National People's Congress at the end of 2007.

Therefore, the Draft suggests a few additional provisions have to be added in the Patent Law. In order to prevent, treat and control an epidemic disease, the Patent Administrative Department under the State Council may grant a compulsory license to exploit the patent. Where a medicine for treating an epidemic disease has been granted a patent in China, and a developing country or a least developed country which has no capability or insufficient capability to manufacture the said medicine, hopes to import the medicine from China, the Patent Administrative Department under the State Council may grant a compulsory license to manufacture the said medicine and to export it to the said country to an entity which is qualified for exploitation.

A particular provision was included in the TRIPS Agreement, which stipulates that

> where the law of a Member allows for other use of the subject matter of a patent without the authorization of the right holder, including use by the government or third parties authorized by the government, the following provisions shall be respected:
>
> (…)
>
> (c) the scope and duration of such use shall be limited to the purpose for which it was authorized, and in the case of semi-conductor technology shall only be for public non-commercial use or to remedy a practice determined after judicial or administrative process to be anti-competitive.[7]

In conforming with this requirement, the Draft suggests that an additional provision to be adopted:

> Where the invention-creation covered by the compulsory license relates to a semi-conductor technology, the exploitation under the compulsory license is limited to the public interest or to the use in remedy of an action of eliminating and restricting competition as determined by the judicial or administrative procedure.

[7] Article 31 (c) of the TRIPS Agreement.

6. Defense of Prior Art

When a court starts for hearing or disposing a patent infringement dispute, the patentee claims that the accused infringer infringes the patent and the accused infringer usually provides evidence to illustrate that the technologies or designs implemented by the accused infringer are the prior art or prior design known by the public before the application date and therefore claims that its activities should not be held as an infringement of patent. In such a situation, the accused infringer has to launch the patent invalidation process to invalidate the patent for the purpose to eliminate its liabilities in an infringement of patent. However, in China, the proceeding for a hearing and disposing of patent infringement dispute is to be held by the court and the proceeding for invalidation of patent is in charge of the Patent Reexamination Board. The accused infringer has to apply for the suspension of the patent infringement proceeding and launch an invalidation proceeding. Only a decision of invalidation needs to be approved by the Patent Reexamination Board, and then the patent infringement case will be restored in the court.

Thus, the whole process in the Patent Reexamination Board and in the court might need a long time, usually several years. Even if the accused infringer finally wins the case, it has to suffer a lot of losses in terms of time, money, market and reputation, which is unfair to the accused infringer that implements the prior art or prior design. If a mechanism on defense of prior art is introduced in the Patent Law, it will simplify the whole matter. The accused infringer that implements prior art or prior design may put forward the defense of prior art during the hearing and disposing of patent infringement dispute, and the People's Court or the administration may decide whether the implements of the accused infringer is prior art or prior design and the infringement dispute can be decided without consideration of the validities of the patent, which will not only simplify the procedures of the infringement dispute but also shorten the litigation term and effectively protect the legal rights and interest of the public

Now, in many western countries, including Germany, the United States, Japan and others, the mechanism of defense of prior has been generally adopted in patent judicial practice. In China, there are also certain practices of some People's Courts and administrative authorities allowing the defense of prior art in hearing and disposing of patent infringement disputes, but there is no such provision in the Patent Law. Therefore, the Draft suggests that an additional Article be provided as the following: where the People's Court or the patent administrative department tries or handles the patent infringement dispute decides that the technology or design exploited by the accused infringer belongs to the prior art or prior design based on the evidences provided by the parties, the said exploiting act shall not be considered as constituting an infringing act.

7. Accusation in Bad Faith

The normal operations of the patent system needs the respect of the whole society for other people's patents and the intensification of the effective protection for the

patent right. At the same time, it is also necessary to prevent the patentee from maliciously interfering the normal business and operation of another person by using its or his right to safeguard the regular market and economic order. Now, some applicants for patents, who clearly know that its or his technology or design belongs to prior art or prior design, still apply for the grant of patent. These applicants maliciously and intentionally violate the provisions of the Patent Law.

Under the Patent Law of the Republic of China, only preliminary examination, but no substantive examination is required for a utility model and industrial design. Thus, such above-mentioned applicants maliciously apply and obtain the patent right, and then charge the accused 'infringer' for infringing of their patent, which severely interfere with the normal business activities of the so-called 'infringer' and of the society. It should be pointed out that such a phenomenon might exist even in the patent right for invention, which has been granted but with some mistakes during the substantive examination in searching of the novelty. So, it is also necessary to strengthen the law-abiding consciousness of the patentee, which is most important for safeguarding the legitimate interest of the accused 'infringer' and the public.

A special Article on indemnification of the Defendant is provided in the TRIPS Agreement as following: The judicial authorities shall have the authority to order a party at whose request measures were taken and who has abused enforcement procedures to provide to a party wrongfully enjoined or restrained adequate compensation for injury suffered because of such abuse; the judicial authorities shall also have the authority to order the applicant to pay the defendant expenses, which may include appropriate attorney's fees.[8]

Therefore, the Draft suggests to provide an additional Article as following: where the patentee, knowing that the technology or design for which a patent right has been granted belongs to prior art or prior design, accuses other persons for infringing its or his patent right and institutes legal proceedings in the People's Court or request the patent administrative department to handle the matter, the accused infringer may request the People's Court to order the patentee to compensate for the damage thus caused to the accused infringer.

8. Pre-Litigation Preservation of Evidence

For interim remedy measures for patent infringement, Article 61 of the current Patent Law provides measures for ceasing an infringing act and preservation of property before litigation, but does not touch upon measures for pre-litigation preservation of evidence. The Civil Procedural Law of the People's Republic of China, in its Article 74, only provides the measures for preservation of evidence after the initiation of a lawsuit, but without any provisions on the measures for preservation of evidence prior to the litigation. However, what often happens in the judicial practice of patent infringement dispute, is that if the evidence is not preserved before the initiation of the litigation, such evidence will possibly be lost or be very difficult to be collected.

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[8] Article 48 (1) of the TRIPS Agreement.

TRIPS Agreement, in its Article 50, provides:

> 1. The judicial authorities shall have the authority to order prompt and effective provisional measures;
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> …
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> (b) to preserve relevant evidence in regard to the alleged infringement.
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> 2. The judicial authorities shall have the authority to adopt provisional measures *inaudita altera parte* where appropriate, in particular where any delay is likely to cause irreparable harm to the right holder, or where there is a demonstrable risk of evidence being destroyed.

As *Gervais* indicated,

> Article 50 (2) deals with measures taken without informing the alleged infringer/ defendant. This may be necessary where there is a risk that otherwise the measure would be ineffective (infringing products and other material could be removed). It applies in particular to professional infringers. Such measures are also justified when the delay that would normally be accorded to the defendant to present his case (even on a preliminary basis) might lead to the ineffectiveness of the measure or other irreparable harm to the right holder (loss of evidence). This is true even where measures are taken against a third party (other than the infringer) who may be acting in good faith (e.g. a carrier).[9]

Just after the completion of the second revision to the Patent Law, both the amendments to the Trademark Law and Copyright Law added a provision on preservation of evidence before litigation. Article 58 of the Trademark Law provides that 'In order to put a stop to an infringement, the owner of a registered trademark or the interested party may, where evidence may be missing or become unobtainable in future and prior to filing a lawsuit, apply to the People's Court for preserving the evidence. The People's Court shall make a ruling within 48 hours from the time it accepts the application. Once a ruling to have the evidence preserved is made, it shall be enforced immediately. The People's Court may order the applicant to provide a surety. Where no surety is provided, the People's Court may reject the application. Where the applicant fails to bring a lawsuit within 16 days after the People's Court adopts the preservation measure, the People's Court shall rescind the measure'. Article 50 of the Copyright Law also provides that

> In order to prevent infringement, a copyright owner or an owner of right related to copyright may, before instituting proceedings, apply to a people's court for evidence preservation where the evidence is likely to be missing, or to be difficult to obtain later. The People's Court, having accepted the application, shall make a rung within 48 hours. Where the People's Court rules to adopt a preservation measure, it shall be enforced immediately. The People's Court may order the applicant to provide assurance, and shall reject the application where the applicant fails to do so. The People's Court shall release the preservation measure in the case where the applicant fails to institute proceedings within 16 days after the People's Court adopted the said measure.

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[9] GERVAIS, The TRIPS Agreement: Drafting History and Analysis, 308 (2nd ed. 2003).

In responding to the situation and the needs mentioned above, the Several Provisions concerning the Application of Law in terms of Pre-litigation Cease of Infringement were issued by the People's Supreme Court in 2001. It provides that the People's Court may, at the request of the party, preserve the evidence with reference to the provisions of Article 74 of the Civil Procedural Law when implementing the measure to cease patent infringement before the litigation.

In the current revision, the Draft for Comments suggests an additional Article to be adopted as following: In order to stop a patent infringement act, under the circumstance that an evidence might become extinct or hard to obtain hereafter, the patentee or the interested party may request the People's Court for preservation of the evidence before instituting legal proceedings. After acceptance of the request, the People's Court shall make a ruling within 48 hours; if the court rules to grant preservation measures, the execution thereof shall be started immediately. The People's Court may order the requester to provide a guarantee; if the requester fails to do so, the request shall be rejected. If the requester does not institute legal proceedings within 15 days after the People's Court has adopted the preservation measures, the People's Court shall lift the preservation measures.

9. Statutory Compensation or Fixed-amount Compensation

Article 60 of the current Patent Law provides that

> [t]he amount of compensation for the damage caused by the infringement of the patent right shall be assessed on the basis of the losses suffered by the patentee or the profits which the infringer has earned through the infringement. If it is difficult to determine the losses which the patentee has suffered or the profits which the infringer has earned, the amount may be assessed by reference to the appropriate multiple of the amount of the exploitation fee of that patent under contractual license.

In the judicial practice of the People's Courts, what often takes place is that the court cannot decide either the losses of the owner or the illegal earnings of the infringer, and there are even no loyalties for reference or the loyalties for reference are obviously unreasonable. In such circumstances, it is very difficult for the People's Court to decide the amount of compensation in the patent infringement dispute.

However, the TRIPS Agreement provides in Article 45:

> 1. The judicial authorities shall have the authority to order the infringer to pay the right holder damages adequate to compensate for the injury the right holder has suffered because of an infringement of that person's intellectual property right by an infringer who knowingly, or with reasonable grounds to known, engaged in infringing activity.
>
> 2. The judicial authorities shall also have the authority to order the infringer to pay the right holder expenses, which may include appropriate attorney's fees. In appropriate cases, Members may authorize the judicial authorities to order recovery of profits under payment of pre-established damages even where the infringer did not knowingly, or with reasonable grounds to know, engage in infringing activity.

In conformity with the requirement of the TRIPS Agreement, Several Provisions concerning the application of Laws in the Hearing of Patent Dispute were issued by

the Supreme People's Court in June, 2001. Article 21 of the above-mentioned Provisions stipulates that

> where there is no patent exploitation fee under contractual license for reference or the patent exploitation fee under contractual license is obviously unreasonable, the People's Court may set an amount of compensation of not less than RMB 5,000 yuan and not more than RMB 300,000 yuan, and not exceeding RMB 500,000 yuan in light of factors such as the type of the patent right, the nature of the infringing act and the circumstances.

This is so-called 'statutory compensation' or 'fixed-amount compensation' in practice, but not based on Patent Law.

After the completion of the second revision of Patent Law in 2001, both the Trademark Law and Copyright Law were revised and the Statutory Compensation was added in the new texts. Article 56 of the Trademark Law provides that

> the infringement during the period of the infringement, or the amount of the losses that the infringed has suffered as a result of the infringement during the period of infringement, including any reasonable expenses the infringed has paid in its effort to put an end to the infringement. Where the profits earned by the infringer or the losses suffered by the infringed as a result of the infringement, as mentioned in the preceding paragraph, are hard to determine, the People's Court shall, on the basis of the circumstances of the infringement, decide to make it not more than 500,000 yuan.

Article 48 of the current Copyright Law also provides:

> Anyone who infringes copyright or a right related to copyright shall pay compensation for damages according to the actual loss of the right owner, or according to the unlawful income of the infringer where the actual loss is difficult to calculate. The compensation shall include the reasonable expenses that the right owner has paid for preventing the infringement. Where the actual loss of the right owner or the unlawful income of the infringer can not determined, the People's Court shall decide a compensation not more than 500,000 yuan in RMB, depending on the infringement circumstances.

In responding to the above-mentioned requirements, The Draft for Comments added a special Paragraph in Article 68, which provides:

> Where it is difficult to determine the losses suffered by the patentee, the profits which the infringer has earned through the infringement and the patent exploitation fee under contractual license, the People's Court may set an amount of compensation of not less than RMB 5,000 yuan and not more than RMB 1,000,000 yuan in light of factors such as the type of the patent right, the nature of the infringing act and the circumstances.

However, in the Draft submitted to the National People's Congress, the above-mentioned Paragraph in Article 68 was cancelled, which reflects that there are still strong oppositions for a statutory compensation or fixed-amount compensation in the patent field. It is up to the Standing Committee of the National People's Congress to decide this issue finally.

The remarks mentioned above are concerned only with some but not all important issues in the discussion of the Third Revision of the Patent Law. My paper can

not include all the issues concerned in the Draft for Comments, for example, ownership of patent completed under a research project with government investment, protection of genetic resource and its disclosure, restrict the scope and enhance the substantive requirements of patent for design, supplementary provisions for instituting legal proceedings and so on. Some other issues, though discussed seriously, but not included in the Draft for Comments for strong confrontation of different opinion, such as principle of equivalence, extension of medicine patent term, indirect infringement and so on. However, all the remarks and issues mentioned above are not yet finally decided until approved by the Standing Committee of the National People's Congress. As far as I know, the Draft for Comments, after amendment once more, will be provided to the Standing Committee of the National People's Congress perhaps in August 2008, which will discuss, amend and finally approve the Draft possibly at the end of 2008 or at the first part of 2009, probably with some minor changes.

Some Critical Remarks Concerning the Act on the Protection of Competition of the Republic of Serbia

Radovan D. Vukadinović

1. Introduction

The purpose of this paper is to present the Act on the Protection of Competition of the Republic of Serbia by analyzing its provisions, and to partially compare these provisions with regulations in the region and with EC competition law. The Act on the Protection of Competition (hereinafter: ACP)[1] was adopted on September 16, 2005, by the Serbian National Assembly and entered in force on April 12, 2006, after the Commission for the Protection of Competition had been established. The Act is composed of 78 articles and divided in five chapters: general provisions, violation of competition, the Commission for the Protection of Competition, sanctions and transitional and final provisions. The Act regulates three common and well-known forms of restraints of competition: restrictive agreements, abuse of dominant position and concentrations. Based on theoretical analyses and enforcement experience with the new Act so far, in the final chapter of this article will identify some deficiencies and suggest appropriate amendments.

2. Brief History of Competition Legislation in the Republic of Serbia

In the framework of the process of stabilization and association, launched by the European Union as a political platform for negotiations with the countries of the Western Balkans, and therewith following the process of harmonization of domestic law with EU law, the National Assembly of Republic of Serbia adopted on September 16, 2005 the Act on the Protection of Competition.

By adoption of this Act, Serbia as a legal successor of the Yugoslavian Kingdom,[2] Socialist Yugoslavia,[3] the Federal Republic of Yugoslavia[4] and the State

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[1] Zakon o zaštiti konkurencije, Sl. Glasnik RS (Official Gazette of the Republic of Serbia), no. 79/2005. available at <http://www.kzk.org.yu/?link=96&lang=1> (as of January 2008).

[2] The Kingdom of Serbs, Croats and Slovenes existed from December 1, 1918 to January 6, 1929. It then was re-named by the King Alexander I in 'The Kingdom of Yugoslavia' also known as the First Yugoslavia, which existed until November 29, 1943/1945.

[3] The Kingdom of Yugoslavia in 1946 was renamed to Federal People's Republic of Yugoslavia. In 1963, the country's name was again changed to Socialist Federal Republic of Yugoslavia (SFRY). Starting in 1991, the SFRY disintegrated.

[4] The Federal Republic of Yugoslavia (FRY) (from April 27, 1992 to February 4, 2003), was a federation on the territory of the two remaining republics of Serbia (including the autonomous provinces of Vojvodina and Kosovo and Metohija) and Montenegro.

Union of Serbia and Montenegro[5], respectively, continues the legislative tradition of protecting competition in the domestic market. Professor Straus was one of the first authors who thoroughly wrote on Yugoslav Competition Law.[6]

Nevertheless, besides a relatively developed legislative background, the beginning of systematic enforcement of the competition legislation in the market of Serbia started after the enactment of the Anti-monopoly Act in 1996,[7] which was the predecessor of the current APC. However, after a relatively short period of time, the Anti-monopoly Act was replaced. The purpose of enacting the new Act was to react, among others, to two major shortcomings.

One major shortcoming of this Act was the Anti-monopoly Commission's lack of independence, since the Anti-monopoly Commission was founded as a department of Ministry for Trading and Services. In addition, the new Act did not regulate mergers and other and other forms of concentrations in the market.

Immediately after the APC of 2006 took effect, in order to enforce it, the Government of the Republic of Serbia enacted two regulations: the Regulation on Criteria for Defining the Relevant Market and the Regulation on the Content and Method of Submission of Request for Issuing Approval for Proposed Concentration.[8] Simultaneously, protection of competition was raised on a constitutional level. Article 82(1) of the Constitution of the Republic of Serbia of 2006[9] guarantees the market economy characterized by an open and free market, freedom of entrepreneurship, independence of business entities and equality of private assets and other types of assets. As to competition the Constitution ensures equal legal status for everyone in the market, and that acts which are illegal and restrict free competition by creating or abusing monopolistic or dominant status, shall be strictly prohibited.[10]

3. The Legal Regime of the Competition Act

The Act consists of 78 articles, grouped in five chapters, named as follows: Chapter I – General Provisions (Articles 1 to 6); Chapter II – Violations of Competition

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5 The State Union of Serbia and Montenegro was constituted on February 4, 2003, and officially abandoned the name 'Yugoslavia.' On June 3 and June 5, 2006, Montenegro and Serbia respectively declared their independence, thereby ending the last remains of the former Yugoslav federation.

6 *See* STRAUS, Das Wettbewerbsrecht in Jugoslawien – Eine entwicklungsgeschichtliche und systematische Darstellung mit Hinweisen auf das deutsche Recht, (1970); STRAUS, Die Entwicklung des jugoslawischen Wettbewerbsrechts und die Neueregelung von 1974, 1976 Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil (GRUR Int.) 426.

7 Antimonopolski zakon, Službeni list Savezne Republike Jugoslavije, br. 29/96, published in: Official Gazette of FR Yugoslavia, No 29/96.

8 Both published in Official Gazette of the Republic of Serbia, No. 94/2005, and in force since November 12, 2005, available at <http://www.kzk.sr.gov.yu/?link=81&lang=1> (as of January 2008).

9 Ustav Republike Srbije, Sl. glasnik br. (Official Gazette of Republic of Serbia), No 83/06, of September 30, 2006, available at <http://www.parlament.sr.gov.yu/content/eng/akta/ustav/ustav_3.asp> (accessed January 2008).

10 Art. 84(1) and (2) of the Constitution of Republic of Serbia.

(Articles 7 to 30); Chapter III – Commission for the Protection of Competition (Articles 31 to 69); Chapter IV – Penalty Clause (Articles 70 to 74) and Chapter V – Transitional and Final Provisions (Articles 75 to 78).

3.1 General Provisions

Articles 1 to 7 determine the purpose and the aim of the Act, define the concepts of different restraints of competition and of the relevant market, as well as the territorial and personal scope of application, including the application to related undertakings.

3.1.1 Subject Matter and Purpose of the Act

The subject matter and purpose of the Act is determined as the 'protection of competition in the market in order to provide identical conditions for undertakings, with the aim to improve economic efficiency, and accomplish economic welfare for the whole society.' From a perspective of legal theory, the purpose defined like this is compatible with the opinion that competition law is divided into rules against restraints of competition and those preventing and suppressing unfair practices.

The Act only regulates restraints of competition, in order to protect competition itself instead of protecting participants in the market. In contrast, the Trading Act[11] deals with unfair practices and prohibits such practices, speculations and restrictions of the market. Unlike good business customs and practice, the concept of unfair practices refers to any merchant's activity that harms other merchants, or legal entities or consumers.[12]

Through setting these aims, the Serbian legislature accepted a contemporary concept of the economic and social role of competition legislation, with an emphasis on economic goals, referred to as 'economic efficiency.'[13] Social goals are indicated by the Act by reference to the promotion of 'economic welfare' for the whole society, particularly consumer benefits. Nevertheless, the position of consumers is

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[11] Zakon trgovini, Sl. glasnik RS, (Official Gazette of Republic of Serbia), no. 85/2005, of October 6, 2005.

[12] The same approach is applied in the European Union where unfair competition between companies is a matter of the domestic law of the Member States. *See* OECD, Competition Law and Policy in the European Union 35 (2005), available at <http://www.oecd.org/dataoecd/7/41/35908641.pdf> (as of January 2008).

[13] Just as a comparison, in the European Union it is expected from competition policy to integrate national markets and sustain the common internal market, as well as to provide equality and fairness, and ultimately to maintain competition. Pursuant to that, the Treaty establishing the European Economic Community considers that 'the institution of a system ensuring that competition in the common market is not distorted' constitutes one of the necessary means for promoting 'a harmonious, balanced and sustainable development of economic activities' and 'a high degree of competitiveness.' In Bosnia and Herzegovina, the Law on Competition is expected 'to maintain and stimulate economic competition and to ensure the free determination of prices for goods and services.' For detailed overviews of the objectives and proposes of competition legislation, *see* UNCTAD, Model Law on Competition, TD/RBP/CONF.5/7, at 11 (2000), available at <http://www.unctad.org/en/ docs/tdrbpconf5d7.en.pdf> (as of January 2008).

not determined only by this Act, but mainly by the more specific Consumer Protection Act.[14]

The Act starts with the presumption that fulfilling general aims and protecting actual interests of the market participants is possible by controlling market power beyond a legally defined level, as well as conspiracies of undertakings harmful to consumers. In general, the Act aims to sustain the market structure by supporting the relations of the market participants that do not harm competition. Furthermore, the Act provides market participants with legal remedies against distortions of competition and conduct that threatens to distort competition. It also empowers the Commission for the Protection of Competition to take sanctions and other measures in order to prevent further distortions of competition and removes the damage caused by such distortions.

Restraints of competition are considered to be the following acts and practices of economic entities and other legal entities and people participating in the market:

(i) agreements, which considerably prevent, restrict or distort competition;

(ii) abuse of dominant position; and

(iii) concentrations causing considerable prevention, restriction or distortion of competition, particularly as a result of the creation and strengthening of a dominant position in the market.

This is a common way to identify restraints of competition known to legal systems of neighboring countries[15] and to Community law.[16] But for their assessment, the Act differentiates between restrictive agreements and concentrations on the one side and abuse of dominant position on the other side, with regard to their relevance for competition. The first two forms of behavior in the market are treated with less severity, prohibited only agreements and concentrations leading to relevant, *e.g.* considerable or fundamental harm to competition, whereas every abuse of dominant position is a prohibited restraint of competition. In dividing competition restraints by their relevance, certain criteria are required for distinguishing them. The duty to formulate such criteria was entrusted to the Government of the Republic of Serbia. Nevertheless, since the Government did not formulate the requested criteria, the Commission for the Protection of Competition in practice relied only on criteria established in the Act. Pursuant to Art. 2(2) of the Act, considerable prevention, restriction or distortion of competition are to be assessed from case to case, in light

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[14] Zakon o zaštiti potrošača, Sl. glasnik RS (Official Gazette of the Republic of Serbia), no. 79/05, of September 16, 2005, available at <http://www.parlament.sr.gov.yu/content/lat/akta/akta_detalji.asp?Id=278&t=Z#> (as of January 2008).

[15] *See* for example the Act on Competition of Bosnia and Herzegovina, <http://www.bihkonk.gov.ba/en/index.html>; the Competition Act of the Republic of Croatia, <http://www.aztn.hr/eng/pdf/zakon/zztn.pdf>, the Law on the Protection of Competition of the Republic of Macedonia, implemented as of January 1, 2005, with amendments in Official Gazette of Republic of Macedonia no. 22/07.

[16] *See* Articles 81 and 82 of the EC Treaty. These provisions will remain the same under the Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, signed at Lisbon, December 13, 2007, 2007 OJ C 306, p. 1.

of the level and scale of the changes in the structure of relevant market, restrictions on and remaining possibilities of equal market access for new competitors, reasons for withdrawal from the market by existing competitors, changes restricting the possibilities for market supply, the level of consumer benefits and other circumstances restricting competition.

It seems that the legislature has brought in some unnecessary dilemma by introducing a qualified form of a restraint of competition, referred to as a 'considerable prevention, restriction or distortion' as a necessary element for banning an agreement, and thereby created the need for future clarification by practice. According to the competition rules of the neighboring states and the European Union conduct involving restrictive or cartel agreements is assessed in light of its effect on trade between the Member States or on the entire common market or a relevant part of it, instead of abstractly qualifying the restrictive nature.[17] In other words, whether conduct of market participants prevents, restricts or distorts competition is assessed in light of its potential or actual effects or consequences on the common market or a relevant part of it.[18]

However, the Act does not regulate state aid. The matter of state aid for undertakings is of special relevance, since former socialist states like Serbia used to develop a peculiar, protective attitude towards certain undertakings, especially those owned by the state. Keeping in mind that those states play a significant role in the process of transition of the economy, it was expected that these issues would be regulated. The reason why this was not done lies, for the most part, in the political environment and economic demand for a fast ending of the process of privatization. Besides, the content of the new State Aid Act has been in the preparation process for more than two years, and it is still in the phase of drafting, which confirms the sensitivity of this matter.[19] The current Draft requires a special regulatory body to be established in order to enforce the Act.

3.1.2 Territorial and Personal Scope of Application

Regarding the territorial scope of application, the APC adopts the effects doctrine. This means that the APC is applicable to practices and acts conducted in the territory of the Republic of Serbia and to practices and acts conducted in foreign territory, having the effect of distorting competition in the market of the Republic of Serbia.

In a personal sense, the Act shall apply to all legal and natural persons and government bodies, institutions of regional autonomy and local self-governments that are engaged, directly or indirectly, in the trade of goods or services, and which by

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[17] *See* Art. 81 of EC Treaty by which 'all agreements between undertakings, decisions by associations of undertakings and concerned practices, which may be affect trade between Member States and which have as object or effect the prevention, restriction or distortion of competition within the common market' are prohibited as incompatible with the common market.

[18] A similar formula was adopted by Art. 2(1) of the Act on Competition of Bosnia and Herzegovina and by Art. 2 of the Competition Act of the Republic of Croatia.

[19] The draft is available at <http://www.mfin.sr.gov.yu/src/1186/> (as of January 2008).

their acts and practices violate or may violate competition (hereinafter: undertakings) in particular to:

(i) business enterprises, entrepreneurs and other forms of enterprises regardless of their form of ownership and seat, and for entrepreneurs, in addition, regardless of their nationality and permanent residence;

(ii) other natural and legal persons who are engaged, directly or indirectly, in a permanent, single or temporary trade of goods and/or services, regardless of their legal status, form of ownership, nationality, seat or permanent residence, such as trade unions, business associations, sports organizations, institutions, cooperatives, owners of intellectual property rights, etc.; and

(iii) government bodies, institutions for regional autonomy and local self-governments, when directly or indirectly engaged in trade of goods or services.

Pursuant to this Act, the definitions of companies, public enterprises and private enterprises are contained in the Law on Business Companies[20] and in the Act on Public Enterprises. Essentially these definitions do not differ from the concept of an undertaking in EC jurisprudence.[21] The key element for all of these market participants is participation in any trade of goods and/or in the provision of services in the market in the sense of any economic activity.

The Law shall also apply to related undertakings. Pursuant to Article 5(2), two or more undertakings shall be considered as related undertakings when one of them:

(i) directly or indirectly, exercises decisive influence on the management of another undertaking particularly on the grounds of holding the majority of share capital; or

(ii) exercises more than half of the voting rights in management boards and has a right to appoint more than half of the members of the management or the supervisory board and the bodies authorized to act as proxies to the undertaking and agreements on transfer of controlling interest. Two or more related undertakings pursuant to this Act shall be considered as a single undertaking.

This Act shall apply to business enterprises, other forms of enterprises and entrepreneurs engaged in economic activities of general economic interest, as well as to such institutions entrusted with a fiscal monopoly. These are often State-controlled or undertakings to which the state granted special or exclusive rights comparable to undertakings in the sense of Article 86(2) EC. It is not important whether such undertaking is public or private, provided that economic activities of general economic interest have been entrusted to it by an act of public authority. However, the application of the Act may not prevent the performance of activities of general eco-

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[20] Zakon o privrednim društvima, Sl. glasnik RS (Official Gazette of Republic of Serbia) no. 125/2004, published on November 22, 2004, in force since November 30, 2004. In Serbian language available at <http://www.parlament.sr.gov.yu/content/lat/akta/ akta_detalji.asp?Id=178&t=Z> (as of January 2008).

[21] The ECJ has defined the concept of an undertaking as 'any entity engaged in a economic activity, regardless of its legal status an the way in which it is financed.' *See* Case C-41/90, 1991 ECR I-1979, para. 21 – *Klaus Hoefner and Fritz Elser v. Mactrotron GmbH*; Case C-475/99, 2001 ECR I-8089 – *Firma Ambulanz Glöckner v. Landkreis Südwestpfalz*.

nomic interest, *i.e.* entrusted activities. The wording 'prevents the performance of activities' is clear referring to a very strict interpretation of this exception. It is not sufficient that compliance with the provisions of the Act merely complicates the exercise of the entrusted activities.

3.2 Acts and Practices Preventing, Restricting or Distorting Competition

3.2.1 Restrictive Agreements

According to the APC, competition can be affected by 'acts and practices.'[22] As such acts affecting competition, the legislature considers agreements, contracts and single provisions of contracts, explicit or tacit agreements, concerted practices and decisions of associations of undertakings, which are specified by the technical term 'agreements.' In comparison with EC competition law, the APC gives wider meaning to the word 'acts' than the community concept of 'agreement' in such way that the word 'acts' includes 'contracts' and 'a certain part of contracts.' Moreover, introducing the concept of 'contract' in addition to 'agreement' without clear criteria for distinction can cause ambiguity. Even in a legal context these terms can be misinterpreted.

A restrictive agreement's bad or prohibited outcome is assessed by an object or effect regarding the level of influence on competition and the relevant market. The difference between the object and the effect of prohibited agreements can be explained by the legislature's intention to cover not only agreements that involve intent of the contracting parties to restrain competition at the moment of signing the agreement, but also the agreements that regardless of the contracting parties' intent, can objectively cause prevention, restriction or distortion of competition. In some foreign legal systems, agreements that have the purpose of harming competition, like price agreements or market division agreements, are forbidden *per se*. The Serbian Competition Act instead does not rely on any *per se* prohibition.

The level of influence on competition is determined by the term of 'considerably' preventing, restricting or distorting competition. This can be interpreted in various ways and will have to be clarified by practice. In Serbian legal writing, the term 'considerably' is regarded as opening room for accepting a *de minimis* rule and for the recognition of agreements of minor importance that do not come under the cartel prohibition of the Act.[23]

A second element that must exist in restrictive agreements is related to the impact or influence on competition. In the APC, it is an accepted well-known opinion that, for restrictive agreements, it is enough to show that they could have negative impact on competition, regardless of their actual harm to competition. In other words, the expression 'may effect' implies that within a sufficient degree of proba-

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[22] The uncommonly used phrase 'acts and behavior' can be found in UNCTAD, Model Law on Competition, *supra* note 13. *See* commentary to Articles 3 and 4.

[23] *See* VUKADINOVIĆ, Zakon o zaštiti konkurencije (Preface to the Act for Protection of Competition), 2006, p. 24.

bility an agreement is capable of having an effect on trade or competition. In the EC, the CFI has developed a test in order to establish whether an agreement or practice is likely to affect the competitive structure inside the Community by altering the patterns of trade.[24]

Finally, as a third element, the violation of competition must considerably affect 'the relevant market.' According to Article 6(2) of the Act, the relevant market is defined as the relevant product market and the relevant geographical market. The relevant geographical market is the market of the Republic of Serbia, while the relevant product market is defined by the set of goods and/or services that can be substituted for each other under the reasonable terms from the standpoint of the consumers of said goods and/or services. This particularly concerns their quality, normal use and price. The criteria for determining the relevant market are defined by the Regulation on the criteria for defining the relevant market.[25] According to Article 2(1) of this Regulation, the relevant market shall be defined by application of the SSNIP (small but significant non-transitory increase in prices) test. This test, which is also known as the hypothetical monopolist test, requires the definition of the specific market for particular products or services where the hypothetical monopolist could profitably introduce a small, but significant and permanent increase in price.[26]

Pursuant to the Act, prohibited agreements are null and void, but some agreements or group of agreements can be exempted from the prohibition. There are two procedures for granting an exemption to a particular agreement or to a part of such agreement: a procedure for individual exception and a procedure for group or block exemptions. Article 9(1) of the Act only provides for general conditions for an individual agreement exemption procedure and entrusts the Commission to decide on it. The Commission may, at the request of the parties to the agreement, grant an exemption to a particular agreement or to a part of such agreement (individual exemption) in case such agreement or a part of such agreement contributes to the improvement of production or distribution. This refers to the promotion of technical or economic progress, while allowing consumers a fair share of the resulting benefit. The restrictions that are imposed are only those that are necessary for the attainment of these objectives, and do not provide the possibility of eliminating competition in respect of the substantial part of relevant goods or services market. The burden of proof concerning the existence of terms for individual exemptions shall be borne by the applicant.

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[24] *See* Case 56/65, [1966] ECR 235, 249 – *Société Technique Minière (L.T.M.) v. Maschinenbau Ulm*: 'For this requirement to be fulfilled it must be possible to foresee with a sufficient degree of probability on the basis of a set of objective factors of law or of fact that the agreement in question may have an influence, direct or indirect, actual or potential, on the pattern of trade between member states.'

[25] Sl. glasnik RS (Official Gazette of the Republic of Servia), no. 94/2005.

[26] Pursuant to this Regulation, a small but significant increase in price is an increase in price in the range of 5to 10%, while within the meaning of this Regulation more permanent increase in price is a price rise of up to one year.

The government has power to define in more details conditions for group exemptions and determines certain categories of agreements to be exempted from the prohibition. The Act provides that horizontal agreements, in particular agreements on specialization, research and development as well as on cooperation may be exempted from the prohibition. As exemptible vertical agreement, the Act enumerates those involving exclusive sale or supply, exclusive distribution, exclusive allocation of customers, selective distribution, distribution or franchise services. These are prohibited as part of agreements on exclusive distribution or supply, and exclusive representation, according to which the agent carries the business risk, restrictions of sale to end users by wholesale merchants and transfer of technology. These vertical agreements may be exempted from the prohibition in case they are concluded for a period longer than 5 years and that they are in effect in particular parts of the territory of the Republic of Serbia. The possibility to group-exempt agreements has so far never been used due to the fact that the Government did not enact regulations on conditions for group agreement exceptions and did not determine categories of agreements that can be exempted, although agreements match the foregoing conditions.[27]

3.2.2 Abuse of a Dominant Position

Another way to harm competition relates to the behavior of undertakings that have a dominant position in the market. Although the APC does not specifically say that a monopoly position is considered dominant, one or more undertakings can hold legally relevant market power, described as a dominant position.

The APC regulates both cases of individual and collective market power. The Act does not address how undertakings acquire their dominant position; it only regulates their behavior of undertakings that hold such position in the market. It is important that relevant market power derives from economic and not legal relations. The main thing is to determine legal criteria for the existence of a dominant position. Practice shows that, besides monopoly as an extreme form of dominant position, which is to be assessed by using economics, other forms of dominant position are determined in a legal sense in light of market shares.

The Serbian legislature takes this approach by combining it with other elements depending on whether an individual undertaking or a group of undertaking might have dominant position. Generally, an undertaking has a dominant position in the relevant market if it has the power to behave independently of other undertakings. Such undertaking is in a position to make business decisions without taking into account business decisions of its competitors, purchasers or suppliers and/or end users, their goods and/or services. In case an individual dominant undertaking has a market share in the relevant market that exceeds 40%, it may or may not be considered dominant, depending on other circumstances. These circumstances are for instance the market shares of competing undertakings in the same market, the existence of barriers to entry and the strength of potential competitors, as well as a pos-

[27] The Commission for the Protection of Competition submitted a draft for such regulation at the end of 2006, but its adoption was postponed because of amendments to the Act.

sible dominant position of the buyer. An undertaking having a relevant market share below 40% may also be considered dominant, but in such a case the burden of proof is on the Commission or the applicant to demonstrate the undertaking's dominant position.[28] Above the market share threshold of 40%, the burden of proof is on the undertaking to show that its is not dominant.

Hence, the existence of market dominance has to be determined on the grounds of all relevant economic criteria defining the position of undertakings in relation to other undertakings, in particular as it concerns the quantity of goods and/or services and income realized from trade of goods and/or services.

According to these criteria, two or more undertakings having an aggregate relevant market share exceeding 50% may or may not be considered dominant. This depends among other things on the undertakings' share in the relevant market, the relative size of this share in relation to the share of other undertakings doing business in the same market, the existence of barriers to entry and the strength of potential competitors, as well as a possible dominant position of the buyer. If aggregate market share of two or more undertakings is below 50%, the burden of proof is on the Commission or the applicant to show that there is market dominance. Conversely, two or more undertakings having an aggregate relevant market share exceeding 50% bear the burden of proof that they are not dominant.

A dominant position as such is not prohibited. However, specific conduct of a dominant undertaking may be banned as abusive. This means that the mere structure of the market does not violate competition law. Violation of competition law can be based on specific 'behavior, practice or doing', which is addressed in this context as abuse of a dominant position. In that sense, the Act forbids abuse of dominant position in the relevant market. According to the Act, the abuse of a dominant position in the relevant product or services market is considered to be such practice which restricts, distorts or prevents competition, such as:

(i) directly or indirectly imposing unreasonable purchase or selling price or other unreasonable conditions;

(ii) limiting production, markets or technical development, thereby causing harm to consumers;

(iii) applying dissimilar conditions to identical transactions with other trading parties, thereby placing them at a competitive disadvantage in the market; or

(iv) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial customs, have no connection with the subject of such contracts (tying practices).

Other kinds of conduct by dominant undertakings that disadvantage other parties in the relevant market could also constitute an abuse. Although there is no provision for an exemption, Community case law at least has developed a doctrine according

[28] Also in the neighboring countries, a market share of 40% is very often chosen as the basis of a presumption for a dominant position. *See* UNCTAD, Model Law on Competition, *supra* note 13, commentary to Art. 4.

to which otherwise abusive conduct is not prohibited under Article 82 EC if it is 'objectively justified.'[29]

3.2.3 Concentrations as a Form of Restraining of Competition

Concentrations, in general, are a way of merging two or more companies in order to achieve joint access to and to act in concert in the relevant market. This was once considered as beneficial conduct that led to technological progress.[30] Nevertheless experience of developed markets showed that concentrations can affect markets and competition in such markets negatively. Especially this is the case when concentration of undertakings leads to the creation or strengthening of a dominant position in the market.[31]

Practice has shown that mergers cannot be properly regulated with cartel agreements and prohibition of abuse of dominant position alone; it was necessary to enact special legal rules that also address those kinds of behavior. Considering this being not just a legal, but also an economical question, regulation of mergers in other national legal systems and in the EU was implemented late in comparison to regulation of cartels and abuse of dominant positions. The Serbian Act finds its place among modern competition law in determining that it is possible to regulate and control mergers by enacting an obligation for the merging parties to submit an application for merger approval before the Commission for the Protection of Competition.

According to Article 21(1) of the Act, the following shall be considered as a concentration of undertakings:

(i) status changes of undertakings, pursuant to the Law on Business Enterprises;

(ii) direct or indirect acquisition of control over the whole or a part of another undertaking by one or more undertakings;

(iii) establishment and joint control by at least two independent undertakings over a new undertaking acting on a fully independent and long-term basis and having access to the market (joint venture).

The control referred to by Art. 21(1) requires – according to Article 21(2) – decisive influence on an undertakings' business activities, on the grounds of granted rights, agreements or any other legal or actual facts, in particular the following:

(i) ownership over or disposal with the whole or part of the property of an undertaking;

(ii) contractual authorization or any other grounds enabling decisive influence on the composition, activities or decision making of another undertaking.

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[29] *See* OECD, Competition Law and Policy in the European Union, 2005, at 26, available at <http://www.oecd.org/dataoecd/7/41/35908641.pdf> (as of January, 2008).

[30] *See* UNCTAD, Model Law on Competition, *supra* note 13, at 28, box 11.

[31] This provision is similar to the balancing-test clause in Section 36 of the German Act against Restraints of Competition (Gesetz gegen Wettbwerbsbeschränkungen).

The forms of control referred to in Article 21(2) shall be assessed independently or one in relation to another, whereas relevant legal and actual facts shall be taken into account but not the intention of the merging parties.

However, because of potential procompetitive effects of the concentration, the process and the result of the concentration are not *per se* prohibited. Similar to acquiring a dominant position, the procedure of implementing a concentration is not prohibited *ipso facto*. Prohibited concentrations are only those that considerably prevent, restrict or distort competition, by creating or strengthening a dominant position in the market.

This type of restraining competition, compared to the previous two, is legally regulated in a specific way, because protection is realized in advance (*ex ante*) and generally the object of protection is the market structure. Therefore, provisions on concentration aim to protect or preserve the actual market and market structure. This can be achieved by eliminating potentially distorting concentrations in advance. Pursuant to this, mergers shall only be carried out upon approval issued by the Commission at the request of the undertakings. The request shall be notified to the Commission within a period of eight days upon signing of the agreement or announcing a public bid offer or acquiring control. The request may be submitted when the parties have serious intentions to conclude an agreement by signing the letter of intention. This can also be done when the parties announce their intention to make the offer for purchase of shares. On proposal by the Commission, the Government of the Republic of Serbia has adopted a regulation on the content and method of submission of the request for authorization of concentrations (notification).[32]

Notification is only required for large concentrations assuming that only such concentrations can have a detrimental effect on the market structure and competition. The volume of a concentration is usually measured in overall turnover exceeding a certain threshold.[33] According to the Act a concentration requires *ex ante* approval if:

(i) the combined annual turnover of all undertakings involved in the concentration effectuated in the market of Serbia exceeds the equivalent of €10 million in Serbian Dinar at the exchange rate on the date of making the annual calculation of the undertakings for the previous financial year, or – alternatively – if

(ii) the combined annual turnover of all undertakings involved in the concentration realized in the world-wide market exceeds the equivalent of €50 million in Serbian Dinar at the exchange rate on the date of making the annual calculation for the previous financial year, whereby at least one of undertakings involved in concentration has to be registered on the territory of the Republic of Serbia.

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[32] *See* Regulation on the content and method of submittal of the request for issuing of approval for proposed concentration, Official Gazette of the Republic of Serbia, no. 79/05, available at <http://www.kzk.org.yu/?link= 81&lang=1> (as of January 2008).

[33] In Community law those concentrations are qualified as concentrations with a Community dimension.

When assessing the effects of an intended concentration, the Commission shall assess whether such concentration considerably prevents, restricts or distorts competition, particularly as a result of the creation or strengthening of a dominant position in the market, taking into account the following indicators: the structure of the relevant market, existing and potential competitors, the market position of the parties involved in concentration and their economic and financial power, whether there is a possibility to choose another supplier or customer, legal and other barriers to entry in the relevant market, the domestic and international level of competitiveness of the parties involved in concentration, supply and demand of relevant goods and/or services, technical and economic development and consumers interests.

Considering the fact that the Act adopts a system of preventive control for concentrations with a duty to notify to the Commission, it is perceived that the defined levels are too low.[34] This is considered as an unnecessary burden for the applicants and for the work of the Commission itself.[35]JD: Please check citations of the sources. If there is a number for the annual volume, this number should be given before the name of the journal. Then follows the first page of the article and the year in brackets. I accepted your instructions.

3.3 Commission for the Protection of Competition and Procedure Provisions

3.3.1 The Status of the Commission for the Protection of Competition and the Procedures before the Commission

The provisions of the Act are applied and enforced in administrative proceedings by a special regulatory body – the Commission for the Protection of Competition (hereinafter: Commission). The Commission consists of the Council for the Protection of Competition on the one hand and the Technical Service on the other hand.

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[34] Notification thresholds vary in neighboring states. For example, according to Art. 25 of the Act of Protection of Competition of Montenegro, the request for approval is mandatory if the cumulative annual turnover of the merging parties realized in Montenegro exceeds €3 million in the previous fiscal year. Alternatively, notification is mandatory if the joint annual turnover in the world-wide market for the previous fiscal year exceeds €15 million and if at least one of the merging parties is registered in Montenegro, while in Croatia the thresholds are fixed at €135 million for the global market and €13.5 million for the domestic market for each of at least two of the merging parties. In Bosnia and Herzegovina, a concentration needs to be notified if the total turnover of all participants adds up to at least KM100 million (€50 million), or at least two of the merging parties have a domestic turnover of at least KM5 million (€25 million).

[35] In this sense also the European Commission indicated that the turnover thresholds for notification are set too low. In addition the Commission argued that both thresholds – for the world-wide and domestic market – should be applied cumulatively. *See* also RADOVIĆ, Zakon o zaštiti konkurencije RS (Act on the Protection of Competition of the Republic of Serbia), 44 Pravo i privreda br. 1-4, at 19 (2007); STEVANOVIĆ, Zaštita konkurencije u Srbiji (Protection of Competition in Serbia), 2 Srpska Pravna Revija, br.6, at 42 (2007); JANKOVIC, Antitrust Does Not Protect Competition: A Critique of the Proposed Antitrust Regulation in Serbia, available at <http://www.mises.org/journals/scholar/Jankovic.pdf> (as of January 2008); and SVETLICINII, Efficiency Defence in the Merger Control Regimes of EC and Republic of Serbia: A Comparative Perspective, 56 Pravni život br. 14, at 241 (2007).

The Council, as a decision-making body, has five members and is responsible for making all decisions and other acts within the competence of the Commission. The Technical Service performs the professional activities within the competences of the Commission and consists of departments for restrictive agreements, abuse of dominant position and concentrations and of a general department and an international cooperation department.

Regarding its status, the Commission is an independent and autonomous organization entrusted with public competencies within the scope defined by the Act on the Protection of Competition. Independence and autonomy is ensured by the way of the appointment of its members and independent steering of the proceedings on the one hand and relative financial autonomy as compared to the Government and other state authorities on the other hand. The members of the Council are appointed by the Parliament on the proposal of institutions entrusted to propose the members of the Council on a five-years term.[36] For its work, the Commission as a collective body is responsible to the Parliament. Council members are appointed among prominent experts within the legal or economic field, provided that they have specific expertise in the field of competition. This is the way how the Act ensures independence of the Commission.

Nevertheless, as regards the financial aspect, independence of the Commission is partially limited by the fact that the Government has to approve the financial plan. But, in return, the Government is obliged, if necessary, to provide additional means for financing the Commission's work.

3.3.2 Provisions on the Administrative Procedure

3.3.2.1 Initiation of Proceedings

The main task for the Commission is to enforce the Act and to impose appropriate measures and sanctions when a violation of competition law is established. In the proceedings before the Commission, unless otherwise regulated by this Act, the provisions of the General Administrative Procedure Act shall apply. Administrative proceedings start either with the application on request submitted by an interested party or on independent initiative by the Commission itself. The President of Council is obliged to issue a resolution on initiation of proceedings upon request within a period of eight days from the date of the submission of a request by the interested party. If the proceedings before the Commission involve parties with opposing interests, the Commission will be obliged to provide the request and resolution on the initiation of proceedings to the party against which the proceedings are conducted. This party is entitled to supply its own response to the request within a period set by Commission, which cannot be shorter than eight days.

[36] These institutions are the Association of Lawyers of Serbia, the Association of Economists of Serbia, the Bar of Serbia, the Chamber of Commerce of Serbia and the Government of the Republic of Serbia.

The President of the Council shall make a resolution dismissing the request, if an unauthorized person has submitted the request, or the practice stated in the request is not restricting, preventing or distorting competition.

3.3.2.2 Parties Eligible to Initiate Proceedings

The right to initiate proceedings belongs to the Commission as well as undertakings and parties concerned.

The Commission *shall* make a resolution on initiating proceedings *ex officio* requesting the Technical Service to conduct it, if the Commission finds, on the grounds of information or otherwise, that the practice concerned is likely to cause harm to competition pursuant to the provisions of this Act. The Commission *may* initiate proceedings *ex officio* if it finds that the practice concerned

(i) is likely to cause considerable distortion, restriction or prevention of market competition; and

(ii) it proves likely that the notifying party has insufficient funds to initiate and conduct the proceedings or that conduct of proceedings *ex officio* is necessary in order to protect the identity of the interested party.

Resolution on initiating proceedings *ex officio* shall be made by the President of the Council.

An interested market participant, empowered to request the Commission to establish a violation of competition law, is defined as a party that suffers or risks to suffer damage. But also parties to an agreement, undertakings with a dominant position or the parties to a concentration have a right to initiate proceedings. Parties to an agreement may request to establish whether a particular agreement is not prohibited. An undertaking that has a dominant position in the relevant market may request from the Commission to issue a decision establishing that particular practice, which such undertaking intends to engage in, is not considered to be abusive. In case of concentrations, the Commission is authorized to initiate proceedings upon the request for authorization of concentration, submitted by

(i) the parties to the concentration in case of status changes of the undertakings or a joint venture; or

(ii) an undertaking or the undertakings acquiring the control over another undertaking or a part of an undertaking.

The following are defined as market participants who suffer or risk to suffer damage: the Chamber of Commerce, an association of employers and entrepreneurs, a consumer protection association and state administrative bodies and regional and local self-government authorities.

3.3.2.3 The Closure of Proceedings

The Commission brings proceedings to an end by making a decision on the undertakings' rights and obligations. Such decision can be made in summary or following regular proceedings depending on the need to conduct investigation or not.

Without conducting investigation the Commission can immediately make a resolution if:

(i) parties with opposing interests are not involved in the proceedings;

(ii) a party in its request supplies facts or submits evidence on the basis of which it is possible to establish the facts or relevant circumstances or if the facts and circumstances can be established on the grounds of facts found by the Commission;

(iii) in the proceedings initiated upon the request for authorization of concentration, on the grounds of submitted evidence and other facts found by the Commission, it is justifiably assessed that the concentration shall not considerably prevent, restrict or distort competition, particularly as a result of the creation or strengthening of a dominant position in the market; or

(iv) it is not necessary to hold a special hearing of the interested party in order to protect its legally protected interests.

In other cases, the Commission institutes regular proceedings.

Depending on the subject matter, the Commission shall make a decision establishing a violation of this Act, if the agreement or some of its provisions considerably prevent, restrict or distort competition, or if a dominant position is abused, as well as a decision on exemption from prohibition of the agreement. These decisions must be handed down within a period not exceeding:

(i) four months following the day of the submission of the request, in proceedings instituted at the request of an interested party, or

(ii) six months following the day of the resolution on initiation of proceedings conducted *ex officio.*

In concentration cases the Commission is obliged to make a decision upon request for the authorization of concentration within a period of four months following the day of the submission of the request. In its decision, the Commission may conditionally or fully approve or refuse to grant authorization for concentration. If summary proceedings take place, the Commission is obliged to hand down its decision authorizing concentration within a period of one month following the day of the submission of the request.

Decisions made by the Commission shall be final. Against the final decision of the Commission, an administrative dispute may be initiated before the Supreme Court within 30 days and the provisions of the General Administrative Procedure Act shall apply.

3.4 Sanctions

The Act on the Protection of Competition pursues two types of sanctions for violation of the Act, namely measures and fines.

The Commission may take various measures when undertakings do not obey a decision that establishes violation of the prohibition of restrictive agreements and the abuse of a dominant position. Besides establishing violation of competition law, decisions may order measures for removing the negative effects of the violation. If,

in cases related to restrictive agreements and abuse of market dominance, undertakings fail to act pursuant to the measures within the time limits set by the decision, the Commission is obliged to make a decision imposing on the undertaking concerned a temporary prohibition of trading a particular type of goods and/or services in the relevant market, not exceeding a period of three months. If these measures do not produce any results, the Commission can prohibit economic activities for a period not exceeding four months. Nevertheless, in cases of an abuse of a dominant position, the Commission is not authorized to take measures such as divestiture of the dominant undertaking, transfer of its assets, shares and participating interest, termination of agreements or waiving of rights enabling exercise of prevailing influence on another undertaking. Even in the cases of unauthorized concentration, the Commission does not have authority to adopt measures of de-concentration.

Imposing a fine is the second type of sanction. However, the Commission itself may not impose fines; it only has power to request the relevant infringement authority to initiate infringement proceedings against undertakings performing acts that prevent, restrict or distort competition. An undertaking may be fined from 1 to 10% of its total annual turnover realized in the financial year preceding the infringement.

4. Final Remarks with a Critical Review

The Commission's short experience with the enforcement of the Act so far has already revealed some weaknesses regarding the substantive provisions the Act and also regarding the procedural rules.

As to substantive provisions, the Act provides no precise criteria for interpreting the doubtful concept of '*considerable* prevention, restriction and distortion of competition' in the framework of defining restrictive agreements. Regarding concentrations, the notification threshold is too low, since it requires large market participants to ask for approval for almost every single transaction. This can lead merger control in the wrong direction. The bottom line of setting merger thresholds would be to free the merger control body from dealing with small retailers, which most certainly cannot significantly affect competition. If those thresholds are too low, the competition agency ends up being swamped with cases and will be financially unable to deal with cartels and abuses of dominant positions. A solution to this problem would consist in raising the thresholds and making the domestic and wold-wide turnover thresholds cumulatively applicable.

Major criticism concerns the part of the Act regulating proceedings before the Commission, and the chapter describing sanctions delivered by the Commission.

There is a serious sub-standardization of the proceedings before the Commission, starting with a request for initiation of proceedings, followed by the approval or denial for request to start proceedings, to the adoption of an appropriate decision. The time limits set by the Act are disputable, since, as it has already happened in practice, they jeopardize thorough and complete assessment of complex cases. This is due to the fact that application of provisions of the General Administrative Procedure Act to issues not regulated by this Act proved to be inappropriate for proceedings before the Commission. Since issues regulated by the Act on the Protec-

tion of Competition often require special rules, it would be better to enact specific procedural rules that treat proceedings before the Commission as a separate form of administrative proceedings.

As for the character of decisions adopted by the Commission on administrative matters, a two-step principle is accepted. Decisions made by the Commission are final, but against the final decision, an administrative law dispute may be initiated before the competent court, namely the Supreme Court of the Republic of Serbia. Although the nature of the administrative dispute is not clear, the Act implies complete jurisdiction of the Supreme Court.[37] Regardless of the justifiability of this solution, there is a certain lack of feasibility, since the burden is put on the Supreme Court due to the fact that administrative courts have not yet started to work. Establishing administrative courts will however not entirely solve this problem, since they are about to face a new field, particularly when the court's assessment of the actual situation is required.

Another shortcoming of the Act relates to the lack of nullity of concentration and the lack of the power of the Commission to order de-concentration in the case a concentration is implemented without the Commission's approval. To certain market participants, it might be more acceptable to pay the fine, and still implement the transaction, if future monopoly returns are expected to outweigh the earlier loss due to the fine.

The imposition of monetary penalties and other measures are particularly burdened by the fact that the Commission itself is not entrusted with the power to impose monetary penalties, but can only submit a request to the relevant infringement authority for initiation of infringement procedure against concerned undertakings. The Act allows very high penalties, ranging from 1 to 10% of the total annual turnover for the previous financial year. These fines are in disproportion with the treatment of violations of competition law as minor violations, *i.e.* a misdemeanor, which are adjudicated by the Misdemeanor Courts. This kind of regulation creates two dilemmas. The first dilemma about misdemeanor courts is one of the administrative system under the patronage of administrative authorities. These courts have their own criteria for independent decision-making. The second dilemma questions the competence of Misdemeanor Courts, especially their audacity necessary to impose the maximum predicted fines to larger undertakings. Court that are more used to adjudicate traffic offenses may not live up to the challenge created by the amount of possible fines and the economic relevance of the proceedings in competition law matters.

An additional problem is that the Commission is not entrusted with the right to impose sanctions against market participants who refuse to cooperate during the inquiry. The Commission should be empowered with the ability to directly impose penalties for refusal of cooperation. Practical problems could occur related to enforcing imposed penalties due to the possibility of conducting two proceedings on the same matter at one time before different bodies. The decisions of the Commission determining and finding an infringement of the Act may be appealed to the

[37] *See* also SVETLICINII, *supra* note 37, at 254 (opposing the view expressed here).

Supreme Court. On the other hand, the Commission can initiate proceedings before a Misdemeanor Court. Consequently, the Supreme Court can repeal the decision, but a Misdemeanor Court can impose a penalty for the market participant (or vice versa). In addition different procedural rules can lead to different decisions, especially in the case of a violation of procedural rules.

Specific penalty provisions contradict the National Strategy of Serbia for Serbia and Montenegro's Accession to the European Union.[38] The Strategy requires the entire penalty procedure be entrusted to the Commission, including the imposition of fines for an infringement of the Act, and that judicial protection be provided in administrative court proceedings initiated by the allegedly infringer against the Commission. Such an approach would in fact ensure the simplicity of the procedure and would enable the Commission to react in time and to impose penalties in conformity with EC rules according to which the European Commission is empowered to impose fines.

Finally, among the issues not regulated by this Act is the imposition of sanctions in case of retaining relevant information or submitting incorrect or misleading data and information during the inquiry, as well as provisions on a leniency program.

The Act does not specify its relation to the increasing number of regulatory bodies empowered to regulate competition issues in special sectors of the economy, such as the energy, media, securities or banking sector.[39] This limitation of the jurisdiction of the Commission for the Protection of Competition can undermine a coherent approach to protecting competition in Serbia.

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[38] *See* National Strategy of Serbia for Serbia and Montenegro's Accession to the European Union, Serbian European Office, June 2005, at 72, available at <http://www.seio.sr.gov.yu/code/navigate.asp?Id=73> (as of January, 2008).

[39] For instance, the new Law on the National Bank of Serbia regulates competition in the banking sector under the authority of the National Bank of Serbia. *See* Law on the National Bank of Serbia, Official Gazette of the Republic of Serbia, No. 72/2003, available at <http://www.nbs.yu/export/internet/english/10/rlinks/law_nbs_200455.pdf> (as of January, 2008).

Secrecy and the Evolution of an Early Patent System

William Cornish

1. The English Patent System in its Early Formation

Joseph Straus is both a leading scholar of patent systems and a thoughtful protagonist of their values. Modern patent systems tend to be justified for their incentive power – their capacity to induce risk-takers, whether they are researchers or investors, to search for novel ideas that are capable of becoming marketable innovations. The role of the system in advancing public knowledge of the information through patent specifications tends to be thought of as also an important, but nonetheless secondary, advantage. The two functions, however, may acquire weightings according to the stage of industrial and economic development reached in a particular country. If the matter is viewed in historical terms, the shifts in emphasis can appear quite dramatic. Let me illustrate this in the development of the British patent system, since it provided the oldest example of such a system that survived through to modern times. Equally it operated in the country that first moved from agricultural and small-scale producers to industry-based firms whose products were distributed far and wide by mechanised transportation, giving rise to predominantly urban society.

In sixteenth-century and seventeenth-century England, when central government was comparatively strong and the first seeds of capitalist production were being sown, the idea took root that the monarch should use prerogative power to award monopoly grants to particular subjects.[1] In the reign of Elizabeth I (1558-1603) grants of trading monopoly within the Kingdom covered a diverse range of opportunities. Prominent among them were open grants ('patents') for the introduction or exploitation of a particular type of production – sometimes novel, sometimes not. One of the great struggles for power between the Crown and the judges at Common Law would arise over these monopoly grants. The judges would be brave enough to rule that grants that were unlikely to produce public benefits were void. At the same time they were prepared to uphold patents for new technologies, since England lagged behind parts of France and the Low Countries in exploring new ways of exploiting staple materials. The Common Law courts therefore accepted the principle of an exception for invention patents. When matters came to a head between James I and Parliament in the Statute of Monopolies of 1624, Parliament insisted that monopoly grants to trade were in principle void. But Section 6 contained the long-remembered exception covering patents for 'manners of new man-

[1] Well-known historical accounts of the early development include GOMME, Patents for Invention: Origin and Growth of the Patent System in Britain (1946); FOX, Monopolies and Patents (1947); and for an economic perspective; MACLEOD, Inventing the Industrial Revolution: The English Patent System, 1600-1800 (1988).

ufacture'. Such patents had to be accorded to the 'true and first inventor' and could last for no more than 14 years. The common law had already accepted such grants, Parliament had made a limited exception for them, and the Crown would grant them as a matter of royal favour where the petitioner made out a sufficient case.

This steeped the first patent system, such as it was, in privilege. The idea that a petitioner should obtain his grant as a matter of course, provided that he satisfied the conditions set by requirements of law would take hold only gradually from the eighteenth century onwards.[2] The justification for invention patents continued to centre around the idea of establishing new technologies for the Kingdom. Plainly one way of achieving this, in England's state of development at the time, was to encourage the importation of technologies already working successfully in other parts of Europe. This would often be achieved not by buying that technology openly, but by encouraging its transposition in secret. An Englishman might go to work abroad so as to learn the art, or one of those involved in the technology might be induced to cross the Channel surreptitiously and provide the ideas. The judges gave force to this policy by accepting that the 'true and first inventor' named in Section 6 of the Statute of Monopolies meant not only the person who made an invention for himself but the importer of someone else's ideas from abroad. The Statute after all referred to 'methods of new manufacture *within this realm*'.[3] The conception of 'invention' thus covered the business of securing a new technology whether or not it involved a voluntary transfer of ideas. It was not in the interests of monarchs or their advisers, any more than those of the 'importers', that the inventions underlying the new technology should become known. In the 17th century patents were granted for technologies which were described only in the broadest of language. It was not the intention that others in the Kingdom should have the benefit of the new knowledge. In a word, patents were about secrets that were to be kept so long as it was possible.

From the beginning of the eighteenth century perceptions would gradually shift. In a society that was just beginning to appreciate the benefits of political liberalism and the free markets that accompanied such ideas, a patent system that simply sustained the linkage between the Crown and those who imported basic industrial novelties began to appear unsustainable. The advisers to the Crown, in the Privy Council, began to appreciate that a patent monopoly stifled competitors, who had therefore a justified interest in knowing what invention the patent covered. In 1711, it was required that within a period from grant (which came to be six months) the patentee must file a specification of his invention describing what it was. From 1734 this became a standard requirement. The great question then became apparent. Did the specification have to give away enough of the essentials of the invention for oth-

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[2] In 1754, the jurisdiction of the Privy Council over patents passed entirely to the common law courts and the movement towards entitlement by virtue of legal right proceeded. It was clearly enough embedded by the last quartile of the eighteenth century: *see* MOSSOFF, Rethinking the Development of Patents, 52 Hastings L.J. 1255 (2001).

[3] *See* Lord Holt's judgment, briefly reported in the early case of *Edgeberry v. Stephens* (1697) 2 Salk. 477.

ers reasonably proficient in the same field to be able to work out and operate it from the description. In modern terminology, how adequate did the disclosure have to be?

2. The Dawn of Industrialisation

Until the middle of the eighteenth century the answer did not matter much, since for whatever reasons, the patent system was scarcely used. Thereafter, however, the numbers granted each year began to rise. By the 1820s the average number was 146, in the 1830s, 245, and in the 1840s, 458. The gradual increase seems to reflect the slow motion of the first steps towards what we now label the 'industrial revolution'. Even in the production industries, human labour on old frames and handlooms began to be replaced by part-mechanisation. Only after decades would it be carried on in factory-like premises with the workers becoming machine attendants. This has to be understood if one is to appreciate why the patent system was not to the fore from the very start of industrial growth. The improvements that new implements and apparatus could bring were often made only by small steps that eventually showed their efficiency to such an extent that they compelled acceptance in place of traditional forms of human labour. Their adoption required a mind-shift among masters, and involved the displacement of a labour-force into new skills or neglected poverty.[4]

As new technologies were being worked up, the great desire for a market-place monopoly over rivals stood in opposition to the determination to keep new ideas hidden, not least when they had already been taken surreptitiously from a foreign source. However, as British mechanics began to produce more and more ideas of their own it was no longer they who looked abroad for clues towards new types of production. Rather they felt themselves to be the victims of foreign predators. Certainly Parliament began to share their anxieties in the latter eighteenth century. It passed a succession of Acts that penalised those who transferred technical knowledge abroad and those with work skills who went off to make the most of them in other countries. This attempt to stem an industrial brain-drain was a late expression of the mercantilist instinct to hoard assets at home. How successful it was is a matter of mystery but it survived on the Statute Book until the great age of free trade which expressed Britain's triumph as the 'workshop of the world'.[5]

It would have been possible to retain the initial character of patents for invention as a coalition between individuals with the ability to set up new industries and governments eager for such things to happen. The chance to have 14 years in which to achieve such progress, free of direct rivals from home and abroad, was very considerable, since the approach tended to exclude not just competitive use of a specific technical advance but mechanised improvements in the industry more generally. There would have been two ways of achieving this result. The specification describing the invention could be allowed to use such general and vague language that oth-

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[4] The leading historical accounts of the period are MACLEOD, *supra* note 1, and DUTTON, The Patent System and Inventive Activity during the Industrial Revolution, 1750-1852, (1984).

[5] Some part of these laws survived until final repeal in 1843.

ers would not dare to enter the same field. Richard Arkwright, first great entrepreneur of cotton spinning, sought to justify the imprecision of language in his carding machine patent by claiming that it was deliberately adopted in order to prevent the technique from being discovered by foreign competitors. If not that solution, then it could have become the law that specific inventions could be patented in secret by keeping the specification from public view until the patent expired. To leaders of the emergent British industries, the second of these prospects – an official blanket on information about a patented invention during the life of the grant – seemed to be a necessary and attainable goal. In the 1790s, James Watt, inventor of the hugely improved steam engine, argued at length for an embargo on disclosure of the specification during the life of the patent. In the following years there were a few attempts to secure this provision by enactment; but the Bills failed.[6] Much later, in 1829, the House of Commons was induced to set up a Select Committee of Inquiry into the Patent System. Of the many complaints that came before it from inventors and owners of the new industries, the lack of a secrecy provision relating to patent specifications filed in Chancery was one of the most prominent. As a defect in the eyes of inventors and entrepreneurs, it must count alongside the extravagantly laborious procedure for obtaining a patent grant in the first place.[7]

The very introduction of specifications and their public enrolment was a first step in a counter-policy which played an absolutely crucial role in the evolution of modern patent systems. Most of what followed was not some fortuitous evolution but instead arose at the insistence of the judges in the royal courts. The chief impetus was supplied by the enlightened Chief Justice of King's Bench, Lord Mansfield and his brilliant junior colleague, Mr Justice Buller. In a case concerning a novel stucco that added charm to the fine buildings and houses of the Georgian era, Mansfield insisted that root justification for a patent system lay in the bargain between inventor and the state, under which the monopoly right was conferred only upon the condition that the inventor would describe his invention with sufficient clarity and detail that others competent in the same field could understand its nature and apply it themselves.[8] His pronouncement was well-remembered among leading barristers of the day. Mr Bramah, for instance, wrote to Sir James Eyre, Chief Justice of Common Pleas, that Lord Mansfield had stated that:

> the law relative to patents requires, as a price the individual should pay the people for his monopoly, that he should enrol, to the very best of his knowledge and judgment, the fullest and most sufficient description of all the particulars upon which the effect depended, that he was at the time able to do. And it was further remarked by the

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6 *See* DUTTON,*supra* note 4, at 36-42.

7 A whole series of steps had to be followed in which an initial petition, once adapted, would lead to the drafting of a bill embodying the patent to be granted, with great condescension, by the monarch. There was a baroque dignity about it all, of which some approved as a preventive measure against too ready a conferment of monopoly power. Somehow it was allowed to survive until 1852. Charles Dickens turned it to bitter farce in his *Poor Man's Tale of a Patent* (1850) and in *Little Dorrit* (1854).

8 The case is *Liardet v. Johnson* (1778), reconstructed by EW Hulme in (1902) Law Quart. Rev. 283.

> Defendant's Advocate, and to which his Lordship assented, that even more was required in some instances; for as the patent was secured to the patentee four months before he was obliged to enrol his specification, this allowance was purely for the purpose of giving the inventor the full opportunity to make experiments for his information; and also, that he might have an opportunity of calling in to his assistance the knowledge of others, on points where either his learning or his practice fell short, in enabling him to complete his specification in a style and manner the most explanatory and comprehensive possible. And he further agreed, as near as I can recollect, that no omission or defect in his instrument could admit of an apology, while it was in the power of the patentee to have avoided it by the means above mentioned, no more than it would be sufficient for the author of an ungrammatical publication to attribute it to a want of scholarship, while surrounded with scholastic abilities in want of such a job.[9]

3. Concretisation of the Law

The firmness of this opinion would seem to leave scarce hope for gaining a patent while not giving away any detail of what the invention was and how it worked. But such was the desire among inventors to achieve exactly that result, that the same sentiment would need to be re-asserted in many judgments and recorded in treatises on the subject. The courts felt strongly that the patent system must be moulded to give a fairer balance than before between inventors and their industrial competitors.

Judgments piled up. By 1844, the specialist barrister, W.M. Hindmarch, could summarise the developments thus:

> No branch of Patent Law has undergone more discussion or consideration than that relating to the specification, and more patents have failed by reason of defects in their specifications than from any other cause.

Among the cases that he proceeded to cite were the leading authorities of *The King v. Arkwright,*[10] *Hornblower v. Boulton,*[11] *Turner v. Winter,*[12] *Hill v. Thompson,*[13] *The King v. Wheeler*,[14] *Campion v. Benyon,*[15] *Bovill v. Moore*,[16] *Crossley v. Beverley*,[17]

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[9] Reporting of case law in England was in the hands of private note-takers and their publishers until 1865 and throughout the eighteenth century it was often both sporadic and seriously inaccurate. The small coterie of common law judges and barristers therefore relied on collective memory, some of it recorded in private notes, in order to recollect what the great figures on the bench had held. Lord Mansfield, during his long reign as Chief Justice of King's Bench took care to see that the reporting of his judgments attained a higher standard than before. But it is no surprise that his wisdom in a specialist field such as patent law should have remained part of the semi-occult knowledge of judges and lawyers.

[10] (1785) Davies PC 61.

[11] (1799) 8 TR 105.

[12] (1787) 1 TR 602.

[13] (1817) 3 Mer 626, 1 Webster's PC 232, 237.

[14] (1819) 2 B & Ald 345.

[15] (1821) 3 Brod & B 5.

[16] (1815) Davies' PC 400.

[17] (1829) 9 B & C 63.

Sanders v. Aston,[18] *Galloway v. Bleadon*,[19] and *Neilson v. Harford*.[20] Given the very moderate number of petitions and bills that led to an actual patent grant in the period before the reformed system was instituted in 1852, this lively policing is remarkable. In its turn it must have done a good deal to make inventors unwilling to seek patents.

It is surprising how many legal consequences would follow from the basic application of the notion of a bargain between patentee and state. The barrister, Richard Godson, published a text in 1823 which demonstrated a thorough practical knowledge of the subject.[21] In his Chapter IV, devoted to The Specification, he spelled out and then discussed eight different objections to validity associated with inadequate draftsmanship: (i) use of ambiguous terms, (ii) omission of necessary descriptions, (iii) claims to non-original parts, (iv) things put in to mislead, (v) incorrect drawings, (vi) one of different ways or ingredients fails, (vii) one of several specified effects is not produced, (viii) things described are not best known to the patentee. Today's questions of invalidity more often turn on external factors, relating to novelty, inventive step and the scope of patentable subject-matter and one is inclined to forget the insistence placed by the courts on getting one's own specification into adequate form.

Another sign of the difference in emphasis is the weight given, first, to best known method and then to inutility regarding both starting materials and specified effects. The first was omitted from the European Patent Convention's requirements; and the latter has only trickled back as that attribute of adequate disclosure, and its correlatives – the requirement under modern conditions that all variants of an invention included in a claim do produce the claimed effect; and the associated idea that a claim ought only to be a fair generalisation from the particular technology described.

4. Disclaiming and Claiming

Of all the developments to which the initial determination to prevent the specification remaining a way of still disguising what the inventor wished to remain secret, it was the development in British patent law of claiming practice as a determinant of scope of right that was the most striking.[22] In the early period of industrialisation, the great bulk of patents were for inventions that improved upon or altered existing technology. It was accordingly seen as a crucial defect in the drafting of specifications that they failed to spell out what the crucial new technique was. The failure to do so might be a deliberate attempt to bury the real nugget within broad descriptions of known apparatus or processes. Equally it might be the result of a failure to under-

[18] (1832) 3 B & Ad 881.
[19] (1819) 1 Webster PC 521, 524.
[20] (1841) 1 Webster PC 295, 321.
[21] GODSON, Practical Treatise on the Law of Patents for Inventions and of Copyright with an Introductory Book on Monopolies illustrated with Notes of the Principal Cases (London, 1823).
[22] The history has been admirably studied by BRENNAN, The Evolution of English Patent Claims as Property Identifiers [2005] I.P.Quart. 361.

stand what was expected of the inventor in his description. Whichever it was, the Courts were clear that it must be avoided. Most patent systems have worked towards imposing on the patentee some obligation to distinguish between the prior art and the novel invention. In Britain patent attorneys gradually arrived at formulations which answered the demand. Such was the concern in early nineteenth-century case law in Britain that this process took the form of positively identifying the invention claimed through the mechanism of setting out all that was disclaimed.[23] At this time it was a requirement which related to the description in the specification, since the idea of distinct claims defining all that would be within the scope of the patent was yet to come.

The standardisation of documentary forms often leads to distinct legal rules. Within a few decades positive claims became more and more distinct. Still, the desire to keep quiet about the real nub of what was being protected would survive. Subtle language could be deployed in attempts to keep something of the veil of secrecy in place. The so-called 'omnibus claim' – a claim to the invention substantially as described in the specification by reference to its text and accompanying drawings – might be the only point at which a positive claim was made. Its tendency was to make the reader labour through the whole description in order to identify what the true invention was.

There is an aspect of the obligation to disclaim which would link to the growing requirement of novelty. The old patent system determined whether an invention was in fact new at the date when the laborious process of obtaining the grant had been completed.[24] During this period there was a particular likelihood that a potential competitor would discover what the invention was and would then either publish it or use it in commerce.[25] This would produce an anticipation which rendered the patent void when granted subsequently. One of the earliest statutory changes in the system allowed the patent after grant to be amended in order to avoid the anticipation but that assisted patentees only to a limited extent.[26] It was not until 1852 that any systematic reform of the British patent system would take place. One change was to measure the validity of the patent against what was known in the country at the date of the application rather than the date of the grant. Some of the old problems of anticipation were accordingly avoided.

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[23] For the formation of this profession in England, *see* VAN ZYL SMIT, 'Professional' Patent Agents and the Development of the English Patent System, 13 IJ Sociology of Law 79 (1985).

[24] The applicant had first to pursue a petition to the Attorney-General or Solicitor-General; from it a bill would be formed. Each stage required the signatures of various officers of state and also the monarch himself, as well as the payment of fees and 'tips' . Unless another person objected, there would rarely be an examination of the application to consider its substantive merits or demerits. It was one of the last governmental procedures to be stripped of excessive formalities.

[25] One aid to competitors had between built into the granting process: for a fee they could enter a caveat which entitled to them to notice of petitions concerning inventions in a given field. By the early nineteenth century, inventors and investors complained that the system was used to get to know what they were up to in time to organise an anticipatory publication or use.

[26] Patents Amendment Act 1835, s. 4.

Further legal developments had to wait until legislation in 1883 and 1902,[27] the latter instigating substantial examination of the specification accompanying an application in order to measure its novelty against the contents of earlier British specifications.[28] In the 1883 Act it was required that a complete specification end with a distinct statement of the invention claimed; and this was in the long term to have a crucial effect in balancing the scope of the right attached to each patent as well as providing others with notification of what alone they may not do. When, however, one commentator maintained that failure to comply would render the patent void, leading patent practitioners insisted that the requisite of a claim or claims was 'merely directory', there being no greater obligation to provide them than there had been under the former practice. Asked whether a patent with only an 'omnibus claim' was now invalid, the House of Lords adopted the latter view, treating the claim requirement as relevant solely during the pre-grant application.

Curiously, however, that procedural position did not detract from the same Court continuing a movement of thought which soon came to treat whatever claims there were as determining the scope of the right. In 1895, in *Nobel's Explosives v. Anderson*,[29]the House held that a claim to an explosive compounded of nitroglycerine and soluble nitrocellulose did not extend to the defendant's alternative formulation in which the nitrocellulose was insoluble. Placing such weight upon interpretation of the language of the claims was no new technique in this context. It had been growing over the centuries since the courts had begun to insist that the new must be distinguished from the old in the specification itself, notably by a distinct statement of what was disclaimed. By 1908, Lord Justice Fletcher Moulton, who as a barrister had been a leading advocate in industrial property cases, would assert that 'claims are universally used and indeed are obligatory'.[30] Their meaning would determine what the patentee asserted to be new and inventive and equally what would amount to infringement. The obligation to avoid appreciable ambiguities now attached primarily to the claims, although if obscurities arose in the description that too could lead to the patent being held void. The implication underlying claims had been reversed. There was no need any longer to state what was disclaimed as of old. The adage, 'what is not disclaimed is claimed', had become, 'what is not claimed is disclaimed'. Each approach sought to insist that patentees specify unequivocally what their invention was, rather than leave it to be divined by readers of the specification – an insistence that patentees had been seeking to by-pass since the 1770s.

The insistence by the Courts that claims be robust enough, and justifiable enough, to mark out the scope of the monopoly granted became a severe criterion. If the jury system had been kept to try questions of patent infringement, the judges might have shown greater readiness to leave final assessment to that body, rather than making all turn on the interpretation of chosen words. But from the mid-nine-

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[27] The Patents, Designs and Trade Marks Act 1883, brought these forms of industrial property together under the administration of the modern Patents Office.

[28] Patents Amendment Act, 1902.

[29] [1895] 11 RPC. 128.

[30] *British United Shoe Machinery v. Fussell,* [1908] 25 RPC 631.

teenth century at least, equity judges had been trying patent cases by themselves in accordance with Chancery traditions.[31] They continued to place heavy emphasis on the 'contract' with the State and its formal expression of scope in order to forewarn the rest of the industry concerned. On both the Continent of Europe and in America by contrast the verbal expression of claims, in varying extents, did not settle the scope of the rights. Ultimately that issue was left to the evaluation of judges (or in the United States to juries). It has taken decades of argument to move the Contracting States of the European Patent Convention 1973 towards any common understanding of what is meant by the provision in its Article 69 that claims determine the scope of the patent right. Whatever the precise outcome of that argument, it has at least become clear that a modern patent system must leave it open not just to Patent Office examiners, but also to judges after grant, to hold invalid claims that stretch beyond any fair generalisation of the invention from what has been disclosed by the patentee in the specification. That is an ultimate issue for any patenting regime. It is one that English judges had tackled with a will from the late eighteenth century onwards. When combined with the technique of pre-grant examination, the basic principles governing validity and infringement were by 1914 providing a fine-mesh filter for British patents, operated by courts, examiners and patent agents. Patented inventions had undoubtedly been commodified, but the 'property' in them was confined by a set of basic constraints that were applied through an elaborate, professionalised bureaucracy.

5. Industrial Property Without Disclosure: Design Registration

The British experience of protection for industrial designs is largely a nineteenth century phenomenon. In its somewhat indeterminate course, the question of secrecy versus publicity played a different role from that in the patent system. For industry as a whole, the question became prominent in the 1830s and produced important new enactments between 1839 and 1843. There had earlier been a form of design copyright for vegetable-based fabrics, which had a very short term of three months. No registration was involved, so there was no prospect of the design becoming public through an official channel. The major developments around 1840 established a Registrar of Designs who, upon accepting an application, would prevent unauthorised third parties from seeing it until the right had expired. The term came to be between one and three years, depending on the category of goods within the registration.[32] Moreover by 1843, Parliament accepted that design registration (or 'copyright in the design', as it continued to be called) included both decorative designs

[31] The change had much to do with the coalescence of jurisdictions which involved giving common law courts and equity courts powers to order remedies that previously had been available only in one or other of them. Behind the development lay the view that juries could not be trusted to understand the workings of patented inventions and the technology of which they formed part. Eventually, in the Patents and Designs Act 1907, it was laid down that patent actions were to be tried without a jury unless there was special reason.

[32] Designs for metal goods alone were entitled to three years and called for a higher fee than other categories.

and designs with a functional shape. Utility models as well as 'good taste' models were available without essential distinction between them.

For this form of industrial property, Parliament felt no need to make the right subject to public awareness. A design was by its nature an element in a product that would reveal itself once the rightholder secured its production and sale. The right in any case lasted only long enough to give a slight headstart over imitators and did so only against exact or very similar copies. The legislature had little compunction about the risks that were opening up for third parties. The new form of right was soon enough popular. Indeed it provided ready protection at a time when patent law remained unreformed, save at one or two small junctures, and little enthusiasm existed for doing so.

As we have noted, over patents there would be a change of heart as the nation came to pride itself on its manufacturing achievements, demonstrated so splendidly at the International Exhibition at the Crystal Palace in 1851. One catalyst for this was the registered design system. From experience with it sectors of industry gained confidence in the very idea of industrial property as a regular fence around new products, and in this the design system demonstrated the benefits of a short term right, available without disclosure to third parties for that term, and subject only to a simple application process. The mid-century decades would be a period when neo-liberal economists and their followers would campaign to bring the patent system to an end, insisting that it imposed constraints on competition that did more harm than good. But in Britain this critical movement made little headway against the bulk of industrial, business and academic opinion. The bargain with the state, which had decades before rooted the exclusive right in the provision of public information about the invention, became a creed that led not to abolition but to an economic tool that could give the country international, as well as national, advantages. From 1873, the British were a significant presence in the movement that would lead to the Paris Convention of 1883 and its subsequent revisions. As the various rights in industrial property gained settled form, a granting process or official deposit became a regulatory pre-requisite, and for the most part, the consideration from the grantee continued to lie in public access to the protected subject-matter.

6. Quasi-property from confidence

What then of those industrialists who kept other technical and commercial information secret by releasing it to others only under a condition of confidence – requiring the receiver not to dispose of the information or make use of it otherwise than had been permitted? By 1850, leading British producers were in the habit of tying their skilled employees to long-term contracts that could make it problematic for them to transfer their know-how to other employments or businesses. The courts would wrestle with the question whether these agreements were invalid for 'want of consideration' or because the restraint of trade was unreasonably extensive. If the employer had a distinct piece of information that was not generally known and was important to his own production, a contractual term requiring it to be kept confiden-

tial would in all likelihood be enforced.[33] However, if the term was an undertaking that after leaving the employee would not work for a competing firm or set up a competing business within a given area for a given period, it had to be limited to preserving the secret technique for a reasonable time. This balance within contractual obligation did a certain amount to set acceptable boundaries between the right of the employer to protect specific know-how and the freedom of the employee to use his skill and knowledge to his own best advantage.

As to general liability beyond the range of contract, courts would respond slowly, as they became aware of the anti-competitive effects which large enterprises could induce by writing confidence conditions into business dealings. Only after the Second World War did they show much willingness to extend the duty to respect confidence to indirect recipients of trade secrets. This may explain why in Britain there was little concern that protection of new technology under confidence poses any essential contradiction of the publicisation objective of the patent system. The courts instead held that the equity protecting confidence could apply, over and above contractual liability, only upon clear proof that discrete industrial secrets were at stake, not just the general skill and knowledge of an experienced worker; or, at a doctrinal level, by refusing to concede that trade secrets were of themselves property in the same sense as a patent. The obligation to respect confidence had about it therefore a flexible character that allied it to trade secret protection in legal systems that have a developed conception of unfair competition.

By assumption rather than argument, English law came to accept that investors in new technology needed rights that would allow mixed licensing of patents and substantial know-how, and would allow the pursuit of those who took the trade secrets without permission as well as anyone who worked within the patent. The differing scope of the two forms of protection justified treating them as complementary, rather than opposed. That conclusion, reached a quarter-century ago by the United States Supreme Court after a major contest,[34] was a victory for the advocates of intellectual property regimes that expand with the demands of prominent voices of industry – voices which seek to insist that whatever an enterprise amasses as 'proprietary technology' should enjoy extensive legal protection. The same voices claim the goal of informing the rest of an industry about inventions that are being patented to be inappropriate under modern conditions. Before that becomes an unchallengable orthodoxy, it is important to recall the long campaign fought in Britain, the United States and elsewhere, to ensure that patent rights came only in return for hard information about novel technologies and not merely for indications that a patentee claimed leadership in a particular idea which could be found out in any detail only by applying for a licence.

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[33] *See* STEINFELD, Coercion, Contract and Free Labour, 125-53 (2002).

[34] *Kewanee v. Bicron,* 416 US 470 (1974).

Legal Protection of Cultural Heritage in a World of Intellectual Property Rights

*Reto M. Hilty**

1. Introduction

The discussion on the legal protection of cultural heritages and traditional knowledge[1] started about 40 years ago, to some extent initiated via a certain public international legal recognition of indigenous peoples and traditional and other cultural communities.[2] From then on, one can observe an increasing extension of the awareness that cultural heritage as such deserves legal protection. During those four decades certain legislative achievements on the international level have been reached, such as for instance (but not limited to)[3]

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1 There is no standardized definition on these various terms; *see* for instance DE CARVALHO, From the Shaman's Hut to the Patent Office: A Road under Construction, in: MCMANIS (ed.), Biodiversity & the Law, 242 *et seq.* (2007); ANTONS, Traditional Knowledge, Biological Resources and Intellectual Property Rights in Asia: The Example of the Philippines, in: 34 Forum of International Development Studies 2 *et seq.* (2007), with further references; FIKENTSCHER/RAMSAUER, Traditionelles Wissen – Tummelplatz immaterialgüterrechtlicher Prinzipien, in: GANEA/HEATH/SCHRICKER (eds.), Urheberrecht gestern, heute morgen, Festschrift für Adolf Dietz zum 65. Geburtstag, 30 *et seq.* (2001); WENDLAND, Intellectual Property, Traditional Knowledge and Folklore: WIPO's Exploratory Program, 33 IIC 488 *et seq.* (2002); DUTFIELD, Intellectual Property, Biogenetic Resources and Traditional Knowledge, 91 *et seq.* (2004). If in the following depending on the issues in question different common terms are used, no particular differentiation is intended.

2 *See* for the terminology for instance ANTONS, *supra* note 1, at 5; FIKENTSCHER/RAMSAUER, *supra* note 1, at 38 *et seq.*; STOLL/VON HAHN, Indigenous Peoples, Indigenous Knowledge and Indigenous Resources in International Law, in: VON LEWINSKI (ed.), Indigenous Heritage and Intellectual Property. Genetic Resources Traditional Knowledge and Folklore, 10 *et seq.* (2nd ed. 2008).

3 For more details concerning the development of the following and further legal instruments of protection *see e.g.* ANTONS, Traditional knowledge, traditional cultural expressions and intellectual property rights: Approaches in the Asia Pacific region, in: ANTONS (ed.), Traditional Knowledge, Traditional Cultural Expressions and Intellectual Property Law in the Asia Pacific Region, chapter 1 (2008 forthcoming); TAUBMAN/LEISTNER, Analysis of Different Areas of Indigenous Resources, in: VON LEWINSKI (ed.), *supra* note 2, at 156 *et seq.*; DUTFIELD, *supra* note 1, at 127 *et seq.*

- Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions (UNESCO/WIPO, 1982),[4]
- Convention on Biological Diversity (CBD, UN, 1992),[5]
- Regional Framework for the Protection of Traditional Knowledge and Expressions of Culture (Secretariat of the Pacific Community),[6]
- Convention for the Safeguarding of the Intangible Cultural Heritage (2003),[7]
- The International Treaty on Plant Genetic Resources for Food and Agriculture (2001, entry into force 2004).[8]

These endeavors are certainly important. However, in particular with regard to the two mentioned conventions, we should not overestimate their impact. These conventions are testimonies of a growing awareness of the uniqueness of certain natural resources and of the relevance of basic cultural acquirements; therefore, such subject matters are deemed worthy of legal protection in order to preserve them. This general interest is one side of the coin. This side is comparatively broadly recognized and well developed today, particularly by means of the named conventions.

The other side of the coin, however, arises from the fact that such subject matters are of considerable economic value.[9] Substantial individual interests exist to commercialize the cultural heritage for the purpose of making profit. It goes without saying that, in particular, industries in developed countries have identified new business areas whilst developing countries – those countries who usually dispose of the cultural heritages in question – are confronted with a foreign exploitation of their own resources beyond their control.[10]

This other side of the coin has also been broadly discussed over the last decades. However, no real progress can be identified on the international level. While the Convention on Biological Diversity contains a number of provisions which seem to address some concerns of developing countries (even if they hardly ever genuinely protect their specific interests but primarily focus on cooperation and participation in a very general way), the Convention for the Safeguarding of the Intangible Cultural Heritage merely focuses on the preservation of the subject matters in question. Against this background, the discussion on possible legal remedies to protect the

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[4] Available at <www.wipo.int/tk/en/documents/pdf/1982-folklore-model-provisions.pdf> (as of May 2008).

[5] Available at < http://www.cbd.int/doc/legal/cbd-un-en.pdf > (as of May 2008); *see* for an overview and analysis for instance STRAUS, The Rio Biodiversity Convention and Intellectual Property, 24 IIC 602 *et seq.* (1993).

[6] Available at <www.wipo.int/tk/en/laws/pdf/spc_framework.pdf> (as of May 2008).

[7] Available at <http://unesdoc.unesco.org/images/0013/001325/132540e.pdf> (as of May 2008).

[8] Available at <ftp://ftp.fao.org/ag/cgrfa/it/ITPGRe.pdf> (as of May 2008); so called 'farmers rights'.

[9] DE CARVALHO, *supra* note 1, 246; DUTFIELD, *supra* note 1, at 18 *et seq.*; concerning the value of folklore *see* LUCAS-SCHLOETTER, Folklore, in: VON LEWINSKI (ed.), *supra* note 2, at 340 *et seq.*

[10] DUTFIELD, *supra* note 1, at 18 *et seq.*; WENDLAND, *supra* note 1, at 499; VON LEWINSKI, Introduction, in: VON LEWINSKI (ed.), *supra* note 2, at 2.

interests of developing countries concerned goes on. On the one hand, it focuses on possible international regulation; on the other hand, it refers to certain isolated national legislative attempts.

Interestingly, however, the recent discussion has hardly ever addressed more fundamental questions – in particular the question whether protection is required at all;[11] instead it has proceeded with detailed analyses of how such protection could be established. Today, roughly three categories of approaches to the problem may be observed:[12]

- Defensive rights approaches, *e.g.* against misappropriation of intangible goods or injury of integrity of cultural identity of certain ethnic groups or cultural communities;
- Remuneration rights approaches, based on aspects inspired by common intellectual property law, notably
  - geographical indications (sometimes used in an extremely broad sense, beyond the common scope of legal protection)
  - copyright law related aspects
  - patent law related aspects
- Rights *sui generis* approaches, often with a rather unclear focus (defensive or remuneration approach), sometimes focusing on customary law approaches unlike Western notions of (individual) property rights.

It goes without saying that opinions vary widely in accordance with the individual positions defended. Against the backdrop of this finding, it is not unrealistic to be in doubt as to whether binding and enforceable international rules for the legal protection of the interests of the countries concerned with regard to the exploitation of the cultural heritage can be achieved within a reasonable period of time. In view of this situation, it may be helpful to go one step back and try to identify the grounds for legal protection regarding the exploitation of intangible goods in the form of subject matters of cultural heritage.

2. The Failure of Traditional Grounds for the Legal Protection of Intangible Goods

Historically, in developed countries two common grounds exist to explain why intangible (that is to say 'intellectual') goods might deserve legal protection.

- One of them has its roots in what is known as the 'Age of Enlightenment', thus in the 17th and 18th century, in particular in certain countries of continental Europe, notably France. In line with the process of individual and collective emancipation this movement focused primarily on the reason of the human

[11] *See* nevertheless *e.g.* DE CARVALHO, *supra* note 1, at 244 *et seq.*; DUTFIELD, *supra* note 1, at 97 *et seq.*; OLUBUKOLA EGUNJOBI, Harnessing Traditional Knowledge for Development: An Intellectual Property Perspective, 21 *et seq*. (2005).

[12] DE CARVALHO, *supra* note 1, at 241; KONGOLO, Unsettled International Intellectual Property Issues, 35 *et seq*. (2008).

being and its intellectual independence from authorities. In particular, this consideration led to the traditional continental European approach of copyright law which in its roots focuses predominantly on moral rights, whereas commercial interests seem to be of comparatively subordinate interest.
– The other common approach is more economically based; it posits that intellectual property rights should be designed in such a way as to provide incentives for creating and inventing intangible goods. It dates from a similar epoch as the first mentioned approach, but its roots are rather to be found in the United States (U.S.). Consequently, the development of this approach stands to a certain extent in a close relationship with the economic development of the U.S.

With regard to indigenous resources or traditional knowledge, however, it is not easy to see how the two mentioned common grounds can explain legal protection.[13] We are neither in the position to identify an individual right holder who could be deemed to have created or invented the subject matter in question and, therefore, could be regarded as the 'natural owner' of it.[14] Nor are we confronted with a subject matter for which legal instruments would be required to provide incentives in order to prevent market failure in the sense described above.[15] Rather, the intangible good in question typically has its origin a comparatively long time ago, and, throughout history, has been in the hands of certain ethnic groups or cultural communities which have been in a position to dispose of their cultural heritage in a more or less exclusive manner for an indefinite period of time. For the stated period of time, legal protection was not required or even considered. This situation started to change when these communities encountered foreigners who discovered the economic value of such cultural heritage and increasingly tried to commercialize it – irrespective of the interests of the ethnic groups and cultural communities in question. Under these new circumstances, we feel, on the one hand, that cultural heritage might, to some extent, be inadequately protected; on the other hand, we realize that the common grounds to explain the protection of intangible goods fail in the present context.

3. Alternative Grounds for the Legal Protection of Cultural Heritage

In the course of the so called 'globalization' a number of countries were, and still are, not in the position to dispose of their own valuable intellectual property – intellectual property in the sense of patentable innovations or new, copyright protected

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[13] More positive about the potential of the common rationales to explain TK protection, OLUBUKOLA EGUNJOBI, *supra* note 11, at 34 *et seq.*

[14] *See e.g.* WENDLAND, *supra* note 1, at 502; VON HAHN, Traditionelles Wissen indigener und lokaler Gemeinschaften zwischen geistigen Eigentumsrechten und der public domain, 202 (2004); OBUAMANAM, International Law and Indigenous Knowledge, 158 (2006); *see also* TAUBMAN/LEISTNER, *supra* note 3, at 81.

[15] Conceptional objections are raised concerning the compatibility of Traditional Knowledge with the Western concept of a market economy, *see* OBUAMANAM, *supra* note 14, at 156 *et seq*.

creations.[16] Nevertheless, they were, and are, increasingly faced with the requirements by industrialized countries to introduce intellectual property rights into their national legal system. Obviously, such rights hardly improve the economic situation of countries without their own relevant intellectual property – or at least not directly.[17] Rather, the world wide establishment of intellectual property rights serves, first of all, the interests of those countries which host the industries disposing of the relevant intellectual property.[18] These industries are, on the one hand, interested in developing new markets in less developed countries; on the other hand, they consider less developed countries as cost-saving manufacturing bases. With regard to both aspects, it is inevitable that technology and creations are brought to these new (consumer or production) market places. Therefore, it seems to be of crucial importance that such intellectual property is not free for copying and imitation.

In return, with regard to lesser developed countries, it is not easy to see how they can benefit from the legal protection of intellectual property.[19] Of course, one may argue that, in the absence of protection, developing countries would not benefit from the investments made by the industries of developed countries in the first place. Thus, it could be assumed that developing countries would not benefit from such effects as the creation of jobs if adequate legal protection were missing.[20] However, it is more than questionable whether such arguments are conclusive with-

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[16] For an analysis of state and ripeness of Chinese intellectual property industries for WTO entry *see*, for instance, LI, The Wolf has come: Are China's Intellectual Property Industries prepared for the WTO?, 20 UCLA Pac. Basin L.J. 77 *et seq.* (2002); *see also* ABOITES/CIMOLI, Intellectual Property Rights and National Innovation Systems, Some Lessons from the Mexican Experience, No. 99, Revue D'Économie Industrielle, 215 *et seq.* (2002), for an account of the impact of the introduction of the TRIPS Agreement on Mexico, a country with low innovative ability.

[17] It has also been demonstrated in an often cited study by THOMPSON/RUSHING, An Empirical Analysis of the Impact of Patent Protection on Economic Growth, Research Paper No. 45 (1996), that intellectual property rights were unlikely to generate any positive effect below a certain minimum threshold of economic development, also cited in GERVAIS, The Trips Agreement – Drafting History and Analysis, 249 *et seq.* (2006).

[18] Figures by the World Bank indicate that the U.S. surplus of royalties and fees resulting from intellectual property transactions increased from 9.6 billion euros to over 15 billion euros between 1991 and 2001 due to the introduction of the TRIPS Agreement, whilst developing countries have suffered a net loss in terms of royalties and license fees that amounted to 5.1 billion euros in 1999 alone, *see* COMMISSION ON IPRS, Integrating Intellectual Property Rights and Development Policy, 21 (2002).

[19] An extensive body of literature exists on the interrelationship of intellectual property protection and economic development. For 2003 literature survey with focus on intellectual property rights and sustainable human development *see* DUTFIELD, Literature Survey on Intellectual Property Rights and Sustainable Human Development (2006).

[20] A number of distinguished commentators have stressed the importance of the role of intellectual property rights systems for economic development, *see* STRAUS, The Impact of the New World Order on Economic Development: The Role of Intellectual Property Rights System, 6 J. Marshall Rev. Intell. Prop. L. 1, 1-16 (2006); *see also* STRAUS/KLUNKER, Harmonisation of International Patent Law, 38 IIC 907 *et seq.* (2007); IMAM, How does Patent Protection Help Developing Countries?, 37 IIC 245 *et seq.* (2006); HILPERT, TRIPS und das Interesse der Entwicklungsländer am Schutz von Immaterialgüterrechten in ökonomischer Sicht, 1998 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 91 *et seq.*

out exception and whether the establishment of intellectual property rights in developing countries eventually leads to a sustainable balance of interests.[21]

Fuel was added to the fire when multinational companies from developed countries did not only seize these new, undeveloped markets, but also started to exploit and to commercialize the cultural heritages of developing countries.[22] Given this development, it is not surprising that some developing countries have increasingly become aware of the value of their own intangible goods – their indigenous resources and traditional knowledge – and that they claimed a similar legal protection which is granted to the intellectual property of industrialized countries. In view of that development, very fundamental grounds for the demand to protect cultural heritage may be seen in the feeling of 'natural justness'.[23] At first glance, the argument of 'justice' reminds one of the grounds that are derived from the 'Age of Enlightenment'. However, on closer examination the background is completely different. With regard to cultural heritage, the feeling of 'natural justice' does not at all focus on an individual person – a creator or an inventor – who is to benefit from the fruits of his endeavors and who is thus entitled to intellectual property rights granted to him personally. The foundation of the feeling of 'justice' has much more to do with the negative experiences of the countries concerned with the Western world.

This concern should undoubtedly be appreciated. Nevertheless, it is not advisable to jump to premature conclusions. To grant similar legal protection to subject matters of cultural heritage against unauthorized exploitation as to common intellectual property is by no means a guarantor for sustainable development of not yet developed countries. In particular, it needs to be appreciated that the creation and the preservation of subject matters of cultural heritage rest upon completely different conditions compared to common, patentable inventions or copyright protected creations. In view of these differences, we cannot regard the legal protection of indigenous resources or traditional knowledge just as a further branch of intellectual property rights, so to speak, as an example of the generally observed trend of a permanent broadening of this field of law. Rather, the desideratum for the protection of cultural heritage must be seen to lie in the self-contained reaction of the communities and countries concerned. It is not accidental – but characteristic – that this desideratum originated with an enormous delay of more than two centuries compared to the establishment of common intellectual property rights. This delay follows from the recent appreciation that there exists a demand for the legal protection of cultural heritage against unauthorized exploitation in light of the emerging threat

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[21] For more critical views, *see*, for instance, HEATH, Bedeutet TRIPS wirklich eine Schlechterstellung von Entwicklungsländern?, 1996 GRUR Int. 1169 *et seq.*; *see also* RÖHM, Die Bedeutung von Patentschutz für den Technologietransfer in Entwicklungsländern (2003); YU, Intellectual Property, Economic Development, and the China Puzzle, in: GERVAIS (ed.), Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPs Plus Era, 173 *et seq.* (2007); BRAGA/FINK, Reforming Intellectual Property Rights Regimes: Challenges for Developing Countries, 1998 Journal of International Economic Law 537 *et seq.*

[22] WENDLAND, *supra* note 1, at 499.

[23] OLUBUKOLA EGUNJOBI, *supra* note 11, at 34.

to the interests of developing countries, coupled with the increasing desire of the industries of the developed countries to optimize their profit margin at all costs.

Consequently, the mere adoption of the established system of legal protection applicable to common intangible goods such as patentable inventions or copyright protected creations might be dangerous and misleading.[24] If the legal protection of cultural heritage is – solely – justifiable in view of the specific situation of the countries concerned, we must first of all ask the question what would really help these countries.

4. The Situation of Developing Countries

First of all, we must point out that it would be too simplistic just to differentiate between developed and developing countries. In particular, there exists a wide variety of developing countries.[25] Thus, we must be aware that certain countries – or rather certain groups and communities within the respective countries – do not intend to develop in a Western sense of 'development'.[26] They wish to remain in their own cultural environment and, above all, do not want their cultural heritage to be exploited. It is a question of respect for these groups and communities not to interfere with their ways of life. We do not implicate the latter groups and communities when we refer to 'developing countries' in the following. Rather such countries (or groups or communities) are addressed which realize that the industries of developed countries are in a position to make a profit relying on their resources and knowledge without the possibility of an adequate own advantage for the developing countries concerned.

As for these latter countries, if one of them disposes of some specific values lying in its specific cultural heritage, we could at first glance envisage a comparatively easy kind of 'annuity payment' to provide it immediate benefit for the exploitation of its resources by third parties. However, the easiest way is not necessarily the best way of dealing with a problem.[27] Therefore, the *prima facie* view that a kind of a 'property system' might be installed to ensure the countries in question an income (based for instance on something like licenses and royalty payments), could turn out to be detrimental to the – long term – interests of such countries. In partic-

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[24] OBUAMANAM, *supra* note 14, at 6; WENDLAND, *supra* note 1, at 503.

[25] Even within developing countries, there might be huge regional disparities such as, for instance, in China, *see* FEI/WAN, China's Regional Inequality in Innovation Capability, United Nations University, Research Paper No. 2006/153, 1 *et seq.* (2006).

[26] Be referred to FIKENTSCHER, Die Rolle von Markt und Wettbewerb in der sozialistischen Marktwirtschaft der Volksrepublik China: Kulturspezifisches Wirtschaftsrecht, 1993 GRUR Int. 90, for an overview of the various attitudes of animistic cultures, Buddhist cultures, the Islamic world, and other cultural and religious groups towards economic development.

[27] Similarly critical ARUP, How are the Models of Traditional Knowledge Linked By International Law and Global Politics?, in: ANTONS (ed.), *supra* note 3 (*see* chapters 'Private Property, Intellectual Property, Sui Generis Forms' and 'Contracts, Markets, Partnerships, Networks'); similar STRAUS, Biowissenschaftliche Eigentumsrechte Belange der Entwicklungsländer, in: DOLZER/HERDEGEN/VOGEL (eds.), Biowissenschaften und ihre völkerrechtlichen Herausforderungen, 213 (2005).

ular, it disregards the experiences of development aid in general. From this, we have learned that mere donations are much less valuable than aid for self-reliance.

Developing self-reliance is particularly important because any effective protection of cultural heritage must be enforceable in developed-country markets, and developed countries will almost certainly never approve of perpetual protection. If we accept the principle that one day legal protection against unauthorized exploitation would expire, then we must from the outset envision a day after which a mere 'licensing' approach will not provide any further income from the exploitation of subject matters of cultural heritage. In view of this we must conclude that countries disposing of indigenous resources or traditional knowledge have a vital interest not only to exhaust their values, but also to develop a long-term perspective focusing on growth and competitiveness for the time when they do not enjoy legal protection anymore.

Another argument why a mere 'licensing' approach would be dangerous should be considered. It is usually very difficult to define the beneficiary or beneficiaries of royalties because an individual right holder is lacking.[28] Rather – if not the government of the state in question – a group or community might be entitled, which provides quite often a rather unclear perspective as to the appropriation of the income in question. The risk is obvious that such resources would suffer a similar fate as mere monetary development aid paid to developing countries: The resources might be used for the short-term enhancement of the country's situation (if they ever reach those in need); however, a sustainable development with regard to the long-term perspective would fail. In view of this situation, we have learned from development aid in general that monetary aid is only one possible form of aid. It is much better to promote direct investments in a way which gradually permits the aforementioned self-reliance.

Consequently, we should first of all try to find – legislative, but also and in particular factual – means to help the countries concerned to learn how to utilize/exploit/trade/market their own resources and knowledge, and also to learn how to behave on the global market, in particular to learn how to deal with industries in developed countries.[29] If we agree on that objective, we must conclude as a next step that too strong a legal protection against unauthorized exploitation of subject matters of cultural heritage would impede the achievement of that aim. We need to think about the economic grounds for common intellectual property law: it must be designed in such a way as to provide incentives for the making of investments aimed at achieving innovation and new creations. Similarly, the legal protection of indigenous resources and traditional knowledge must focus on incentives for developing countries and their ethnic groups or cultural communities to achieve an advancement of their position in the global economy.

It goes without saying that these very general observations need to be concretized with regard to the subject matters concerned. Broadly speaking, we may iden-

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[28] ABEYESEKERE, The Protection of Expressions of Folklore in Sri Lanka, 38 IIC 187 (2007); OBUAMANAM, *supra* note 14, at 158 *et seq.*; regarding the different approaches to define the beneficiaries of TK protection *see* TAUBMAN/LEISTNER, *supra* note 3, at 143 *et seq.*

[29] ARUP, *supra* note 27.

tify three larger areas which cannot be governed by the same legal rules. These three areas may be referred to by the keywords 'medicine', 'food' and 'art'.[30] The following reflections are aimed at drawing some very basic distinctions. These reflections are by no means exhaustive; however, they might provide some food for thought for the further discussion of issues relating to cultural heritage.

5. Differentiations

5.1 'Medicine': Biological Substances

The legal protection of biological substances should not be understood to require protection similar to that for substances in terms of patent law. Neither would the requirement of (absolute) novelty be met nor would it be possible to achieve perpetual protection.[31] Under such conditions it is not helpful to call for a protection '*sui generis*' as long as we do not know what that would mean in detail. Rather, the following three layers of legal protection are promising:

(1) First, the countries concerned must be able to exercise some form of 'domestic authority'. As long as they are able to in fact control access to their resources, they are in a position to stipulate requirements concerning access by third parties. In view of the general public interest in suchlike resources (keyword 'medicine'), these requirements may as a matter of fact not be abusive. However, if they are sufficiently fair, the competent authorities (state authorities or authorized private organizations, taking into account the concerns of specific ethnic groups of cultural communities) are in a position to contract with interested parties (stipulating *e.g.* the applicable law and place of jurisdiction). If such parties breach the contract, a lawsuit may bring justice to the groups or communities in question. The key to this approach, however, is to legally guarantee such 'domestic authority' understood as a 'right of access'. Where this is not guaranteed, an injury cannot be solved on the basis of contract law (as no contract has been concluded). As a consequence, it was important to recognize biological resources to be subject to the sovereign rights of states in Article 15 Par. 1 CBD, allowing the countries concerned to establish regimes of access and benefit sharing,[32] a step which has indeed been undertaken by quite a number of them in the meantime.[33]

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[30] Similarly for example ARUP, *supra* note 27.

[31] Similar VON HAHN, *supra* note 14, at 200 *et seq.*; *see also* TAUBMAN, Genetic Resources, in: VON LEWINSKI (ed.), *supra* note 2, at 217 *et seq.*

[32] *See also* TAUBMAN, *supra* note 31, at 250; more specific MILLER, Impact of the Convention on Biological Diversity: The Lessons of Ten Years of Experience with Models for Equitable Sharing of Benefits, in: MCMANIS (ed.), *supra* note 1, at 58 *et seq.*; *see also* BROWN, Who Owns Native Culture?, 142 (2003), who argues that the process of negotiating agreements of access and benefit sharing must become faster and more transparent.

[33] For an overview *see* STRAUS, Patents on Biomaterial – A New Colonialism or a Means for Technology Transfer and Benefit-Sharing?, in: THIELE/ASHCROFT (eds.), Bioethics in a Small World, 61 *et seq.* (2005); SEILER/DUTFIELD, Regulating Access and Benefit Sharing, 69 *et seq.* (2001); DUTFIELD, *supra* note 1, at 138 *et seq.*

(2) The second layer is related to the first one since it makes the first layer at least partially more effective. It lies in the obligation of all industries using biological resources to declare their origin.[34] Such an obligation would not directly improve the situation of the developing countries concerned. Nevertheless, it would provide a substantial measure of transparency. Notably in the case of unauthorized access ('unclear hands doctrine'), such industries would encounter serious problems to explain the origin of biological resources, at least if sufficient legal remedies exist in case of nondisclosure of origin.[35] However, regarding the current international law, such an obligation assumedly interferes with Article 27 TRIPS by constituting an additional condition for patentability. Thus, either an adaptation of Article 27 TRIPS might be considered or specific remedies to the disadvantage of the right holder.[36]

(3) The third layer takes backing in the international law (Article 31 let. l TRIPS). In the case of a patented invention which cannot be exploited without infringing another patent, such exploitation can be authorized on the basis of a compulsory license under three conditions basically[37]

(i) the invention claimed in the second patent shall involve an important technical advance of considerable economic significance in relation to the invention claimed in the first patent;

(ii) the owner of the first patent shall be entitled to a cross-licence on reasonable terms to use the invention claimed in the second patent; and

(iii) the use authorized in respect of the first patent shall be non-assignable except with the assignment of the second patent.

All three conditions look – *mutatis mutandis* – quite reasonable also with regard to the exploitation of biological resources:

– If an industrial application is based on biological resources, a prohibition of that application would not be justified if there is an important (general) interest in the

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[34] STRAUS, *supra* note 27, at 212.

[35] *See* in that respect *e.g.* Article 80 of the Costa Rica Biological Diversity Law 7788, which requires the applicant of a patent based on biological resources to provide a certificate of origin and prior informed consent; otherwise no patent will be granted; *see also* DE CARVALHO, *supra* note 1, at 249 *et seq.*

[36] Regarding the first approach GUPTA, The Conundrum of Creativity, Compensation and Conservation in India: How Can Intellectual Property Rights Help Grass-roots Innovators and Traditional Knowledge Holders?, in: MCMANIS (ed.), *supra* note 1, at 339; discussing alternatives STRAUS, *supra* note 27, at 212; DE CARVALHO, *supra* note 1, at 255 *et seq.* In fact, the incompatibility with TRIPS may be circumvented if for instance the requirement is of a formal nature focusing on the patent application procedure only; this is the approach of the amended Swiss Patent Act (Article 49a requires the indication of the source of genetic resources or the traditional knowledge to which the inventor had access regarding his invention; if it is not known, that has to be confirmed in written form; in case of intentional disrespect criminal sanctions apply, Article 81a); another approach would be to prohibit the enforcement of a (as such granted) patent in case of lacking declaration of origin.

[37] CORREA, Trade Related Aspects of Intellectual Property Rights a Commentary on the TRIPS Agreement, 311 *et seq.* (2007).

technical advancement in question. In fact, if it is of considerable – in this case rather 'health policy oriented' than 'economic' – significance, further developments must be allowed. Therefore, under given circumstances, not only the grant of a patent for such an industrial application may be appropriate in view of the required incentives to develop such an application.[38] In addition, it would be in conflict with the general interest if the use of that patent could be impeded based on any kind of legal protection relating to the biological resources as such.

– On the other hand, with regard to the justified interests of those groups or communities which always had been disposing of the biological resources in question, it is unimaginable that they could be hindered to use their own biological resources because of newly existing patents. However, if we are serious about the considerations of self reliance in developing countries, we cannot be satisfied with a mere right of continued use of the resources as such. Rather, the existing solution of international law seems to be justified: The basis of a real balance of interests suggests a kind of a cross-license with regard to the patented invention.[39] In fact, if the countries that are familiar with their own biological resources are enabled to use related modern techniques, one very important interface for traditional development aid can be set up: Aid organizations can help to introduce their own domestic industries and therewith develop the national economies in question. Sure enough, this way is arduous, and aid organizations often will not dispose of the related know how. In view of this situation, unanimous approaches would of course be preferable.[40] However, mutual agreements between such countries and the industries concerned risk to remain wishful thinking without backing pressure of a compulsory licensing system.[41]
– One crucial point concerns the question of the beneficiary of such a cross-license. However, the person of the individually entitled licensees remains secondary in light of the third condition of international law, which must, however, be applied in an 'inverted' manner: the use authorized by the cross-license may

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[38] This question has to be distinguished from the situation where traditional knowledge as such (without further – inventive – development) was subject matter of patent protection; regarding this question and remedies to avoid monopolization of prior knowledge DE CARVALHO, *supra* note 1, at 247 *et seq.*; for a protection of 'genetic resources *per se* and their derivatives' by the means of intellectual property rights STRAUS, *supra* note 5, at 611.

[39] A first step in that direction has been undertaken by the Philippine law, for example, where one prerequisite for acquiring access of companies or research institutions to resources from the country is that they have to agree on a commercial use of the related technology or product by the Philippine government; for details *see* SEILER/DUTFIELD, *supra* note 33, at 81.

[40] In that sense SEILER/DUTFIELD, *supra* note 33, at 53; this is basically also what can be drawn from Article 16 *et seq.* of the Convention of Biological Diversity (*supra* note 5); generally critical against compulsory licensing DUTFIELD, *supra* note 1, at 84; VERMA, Plant Genetic Resources, Biological Inventions and Intellectual Property Rights: The Case of India, in: ONG (ed.), Intellectual Property and Biological Resources, 140 (2004); STRAUS, *supra* note 33, at 54.

[41] OLUBUKOLA EGUNJOBI, *supra* note 11, at 75; VON HAHN, *supra* note 14, at 227. Other cases are expounded in literature, however, which certainly proves good faith of some players; *see e.g.* STRAUS, *supra* note 33, at 69 *et seq.*; STRAUS, Biodiversity and Intellectual Property, in: HILL/TAKENAKA/TAKEUCHI (eds.), Rethinking International Intellectual Property, 163 *et seq.* (2000); STRAUS, *supra* note 5, at 604 *et seq.*

not be assignable without assigning the related business as such (which means in this case the factual possibility and the right to exploit the biological resources in question). In fact, if the ethnic group or cultural community keeps that business, the interests of all parties involved – the one of the holder of the patent as well as the interests of the group or community concerned – remain basically the same, even if individual persons that exploit the cross-license change within the group or community.

It goes without saying that the duration of such a compulsory cross-license to the benefit of cultural communities or ethnical groups depends on the term of protection of the related patent. As soon as it expires, every third party is free to use the invention.

5.2 'Food': Agricultural Products

In case of particular agricultural products originating from countries which dispose of specific cultural heritage to which these products are related, the wheel must not be reinvented.

(1) To some extent, the legal instruments of geographical indications provide a certain protection,[42] even if some factual conditions must be met and some particularities should be considered:

- A geographical indication does not have a value in itself. First of all, the parties using it must invest in a market to develop the general knowledge related to the product in question. Therefore, if a product is not known but only recently 'discovered' on the global market, potential users of the geographical indication have a long way to go to achieve successful marketing under the indication in question. Furthermore, once a formalized legal protecting system is established in a country – like this is the case in Europe for instance –,[43] producers applying for geographical indications in due time gain an important head start to launch their products. For all third parties who want to jump on the bandwagon later on – when the marketing of the related products proves to be successful – can be fended off easily.[44]
- On the international level, however, it must be emphasized that legal instruments to protect geographical indications are underdeveloped; therefore, it may be an arduous path to enforce these rights in practice.[45] If similar products are manu-

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[42] *See also* BLAKENEY, Protection of Traditional Knowledge by Geographical Indications, in ANTONS (ed.), *supra* note 3, chapters 3 and 5; DUTFIELD, *supra* note 1, at 107.

[43] Council Regulation (EC) No. 510/2006 of 20 March 2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:093:0012:0025:EN:PDF> (as of May 2008); see also MCGUIRE, Die geographische Herkunftsangabe im Gemeinschaftsrecht, 2008 Wettbewerb in Recht und Praxis (WRP) 620 *et seq*.

[44] *See also* VON HAHN, *supra* note 14, at 206 *et seq*.

[45] KUR/KNAAK, Protection of Traditional Names and Designations, in: VON LEWINSKI (ed.), *supra* note 2, at 307 *et seq*.; more optimistic about the possibilities of geographical indications BLAKENEY, *supra* note 42, chapter 7.

factured and marketed outside of a country granting protection for geographical indications, such titles are valueless. This is, however, not a specific problem of developing countries disposing of cultural heritage. Rather, there is a general deficiency regarding the development of international intellectual property law and competition law, respectively.

– Another problem is that geographical indications do not protect the products as such.[46] As long as there is not an additional – alternative – legal protective instrument (such as a patented process to produce the product in question), third parties are free to produce similar products. Merely the use of the related geographical indication is prohibited. Nevertheless, considering generally observed customs to most consumer goods, brands seem to be of crucial importance. It follows that geographical indications provide at least valuable interfaces to set up traditional development aid. Aid organization can help to establish and to promote valuable brands – particularly geographical indications – in developing countries and tutor them how to merchandise characteristic products of specific origin in international markets.

(2) Further on, agricultural products (but beyond that, other cultural products as well) may benefit from trade mark or public certification systems:

– The advantage of the trade mark law which guarantees an exclusive right to the right holder[47] may be extended to indigenous and local communities – who are willing to commercialize subject matters of their cultural heritage, but where an individual right holder cannot be identified – by the means of collective marks (Article 7bis Paris Convention).[48] One disadvantage of the trade mark systems – used on a world wide scale – are the costs; another one is the comparatively high level of knowledge and organisation required,[49] which provides, however, again a possible interface for traditional development aid.
– An alternative may be seen in public certification systems, installed by a public authority which administers certification stamps or hallmarks that are exclusively granted to products manufactured by indigenous or local groups. An advantage would be that in case of infringement of the certification system the respective state could take action, in particular in combination with the registration of such a certification as a trade mark.[50] A disadvantage, however, is unavoidable bureaucracy and a lack of flexibility of such an approach.[51]

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[46] TAUBMAN/LEISTNER, *supra* note 3, at 107; VON HAHN, *supra* note 14, at 206; BLAKENEY, *supra* note 42, chapter 7.

[47] For the general impacts of trade marks in case of traditional knowledge KUR/KNAAK, *supra* note 45, at 296 *et seq*.

[48] TAUBMAN/LEISTNER, *supra* note 3, at 108; VON HAHN, *supra* note 14, at 205.

[49] ABEYESEKERE, *supra* note 28, at 193 *et seq.*; KUR, Analysis of Different Areas of Indigenous Resources, in: VON LEWINSKI (ed.), *supra* note 2, at 128.

[50] One example is the Canadian 'igloo' tag, which has been registered as a trade mark by the Canadian Government and which is only attached to products manufactured by Inuit artists; *see* ABEYESEKERE, *supra* note 28, at 194.

[51] Regarding this approach in general KUR, *supra* note 49, at 129 *et seq*.

– Albeit the mentioned advantages both, trade mark and public certification systems, suffer from similar problems as geographical indications do; in particular they do not provide for more than indirect protection; the products themselves remain unprotected.[52] Nevertheless, a certain guarantee of authenticity to potential buyers is provided; therewith, such systems may facilitate commercialization of agricultural or other cultural products for indigenous and local communities at least to some extent.[53]

5.3 'Art': Cultural Products

With regard to specific cultural products representing the related national (or regional) heritage, the situation is more complicated. Attempts to legally protect intangible goods as such – subject matters which have been known for a long period of time and form, therefore, part of the public domain – risk conflicting with common principles of intellectual property law,[54] notably copyright law, but possibly also design law. Even under the perspective of the aforementioned 'natural justice',[55] it may be hard to explain why, for instance, folklore as such (or specific patterns or ornaments) should be protected subject matters. The argument that *sui generis* protection systems might be appropriate means of demonstrating good will in light of the hitherto existing willingness of developing countries to implement traditional intellectual property rights in their national systems may hardly be convincing from the viewpoint of economic rationale.[56] Neither would it be feasible to protect such elements with individually granted intellectual property rights, nor could it be acceptable with regard to common principles that stylistic elements (*e.g.* certain types of folklore or kinds of drawings) would be monopolized at all. Ultimately all *sui generis* protection systems would face a number of difficulties, be it an appropriate definition of the beneficiaries or be it the range and the subject matter of protection.[57] Furthermore, they all run the risk of overprotecting indigenous or local communities[58] and thereby hindering their sustainable development.

Given this situation, and in view of the practical requirements of the countries, groups or communities concerned, it seems worthwhile to discuss four layers of

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[52] ABEYESEKERE, *supra* note 28, at 193. KUR, *supra* note 49, at 131.

[53] DUTFIELD, *supra* note 1, at 107.

[54] ARUP, *supra* note 27 (chapter 'Common Heritage, Public Domain'); DUTFIELD, *supra* note 1, at 101.

[55] *Supra* chapter 3.

[56] Concerning such arguments *see* VON LEWINSKI, An analysis of WIPO's latest proposal and the Model Law 2002 of the Pacific Community for the protection of traditional cultural expressions, in: ANTONS (ed.), *supra* note 3, chapter 5; VON HAHN, *supra* note 14, at 315 *et seq.*; ABEYESEKERE, *supra* note 28, at 194.

[57] ANTONS, *supra* note 1, at 15; ABEYESEKERE, *supra* note 28, at 192; GRABER, Modern Law Safeguard Archaic Cultural Expressions? Observations from a Legal Sociology Perspective, in: ANTONS (ed.), *supra* note 3, chapter 3.

[58] BROWN, *supra* note 32, at 252.

protection. However, it is to be noted that the second layer has already been established, whereas the third layer does not really provide a convincing approach:

(1) On the one hand, we must be aware that a number of cult objects do not only have an economic value for the global markets, but much more they have spiritual, ritual or other non monetary values to the cultural communities or ethnic groups concerned. In such a case it would be an offense to them if an exploitation of their objects would be free based on the argument that the protection requirements of common intellectual property rights are not met at all (or are not met anymore, *e.g.* because the expiry of the term of protection). At the same time, it would not be conclusive and, therefore, not helpful to meet the concerns in question arguing on the basis of 'moral rights' – if there is not a copyright protected work to base on, that specific aspect of copyright may not apply neither. Rather we should – again – consider the 'cultural privacy' as kind of a collective entitlement to defence of the community or group in question. If such a community or group is unwilling to commercialize cult objects used for its own spiritual, religious or whatever purposes, we must respect that. Any kind of population must have a right to its cultural integrity. Therefore, it must be able to defend its interests against any kind of misappropriation of its identification building cult objects. However, that legal protection cannot be derived from specific rights related to the subject matter in question as long as we do not consider them to be capable of being protected as such. Rather the protection of the 'cultural privacy' has to have its roots in public international law which must, however, first be developed in that respect.[59]

(2) On the other hand, international law has already been amended substantially with regard to the needs of indigenous cultures. While the Rome Agreement of 1961 limits the term 'performers' to 'actors, singers, musicians, dancers […] who act, sing, deliver, declaim, play in, or otherwise perform *literary or artistic works*' (Article 3 let. a), according to TRIPS, the legal protection of performers does no longer depend on the subject matter that has been performed (Article 14 Par. 1). Instead, the legal protection derives from the performance as such, which means that performing (not copyright protected) folklore leads to an identical protection as the performance of a copyright protected work. Additionally, the term 'expressions of folklore' has explicitly been introduced in the definition of the 'performer' in Article 2 let. a WPPT. Consequently, ethnical groups or cultural communities are today in the position to prevent acts using their performance (*e.g.* the fixation of a live performance, the reproduction of such a fixation, its broadcasting, etc.), which provides a relatively strong protection.[60] Nevertheless, the protection is not extended to the use of folklore as such.[61] Therefore, the folklore related group or community cannot avoid an independent performance, however, still under the reservation of the aforementioned layer of protection that the use would be deemed as injury of the 'cultural privacy' of the group or community.

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[59] *Supra* chapter 5.2.

[60] *See* LUCAS-SCHLOETTER, *supra* note 9, at 480 *et seq.*; DUTFIELD, *supra* note 1, at 104.

[61] VON HAHN, *supra* note 14, at 202; LUCAS-SCHLOETTER, *supra* note 9, at 356.

(3) A further approach might be considered that is particularly known from copyright law in France: the 'domain public payant'. That approach accepts that the term of protection in copyright law expires after a certain period of time; however, it extends the obligation to pay for the use of (unprotected) works in order to cash money for specific purposes.[62] In particular, the money collected that way shall be used for the advancement of culture. Similar to that approach one might consider accepting that a copyright may not exist with regard to folklore as such, but nevertheless cash money in case of its use. Two reservations must be placed, however. The first one concerns the system as such. It would – at least in a long term view – not be consistent to introduce a 'domain public payant' rule with regard to folklore only, but not for common art productions for which the term of protection is expired. The second reservation focuses on the fact that the model of the 'domain public payant' has not widely been accepted in the world.[63] If such an isolated national rule were implemented, the effect at least for folklore would be comparatively little since all uses of folklore outside the country concerned would nevertheless remain free. The effect would be, that only the own national population would pay for the use of folklore – a situation that hardly meets the discussed concerns.

(4) Finally, a fourth layer might be taken into consideration, which, however, only provides for defensive protection. It focuses on the practice of some companies from industrialized countries to exploit traditional knowledge applying (ordinary) intellectual property rights.[64] The approach would be to establish databases or something like containing lists of traditional knowledge in order to prevent the granting of protecting rights conceiving widely unknown traditional knowledge in certain countries.[65]

6. Conclusion

To sum up, it can be stated that there are quite some possibilities of (partially new) legal remedies or amendments of the existing (international) legislation to help the situation of – notably, but not exclusively – developing countries with regard to their cultural heritage. Nevertheless, a considerable number of differentiations is required. It would not be feasible to face the problem of lacking protection as one unitary challenge. On the one hand, too simplistic approaches risk failing many of the justified concerns (*e.g.* possible legal instruments to provide aid for self-help with a long-term perspective). Such concerns are of a highly specific nature; there-

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[62] ABEYESEKERE, *supra* note 28, at 190 *et seq*.

[63] Nonetheless, the concept of a 'domain public payant' focussing on traditional knowledge has been implemented in Peru; *see* TAUBMAN/LEISTNER, *supra* note 3, at 147.

[64] For examples *see* VON HAHN, *supra* note 14, at 279; DUTFIELD, *supra* note 1, at 52 *et seq*.; less critical STRAUS, *supra* note 27, at 201 *et seq*.

[65] ANTONS, *supra* note 1, at 15; KING, Commentary on Biodiversity, Biotechnology and Traditional Knowledge Protection: A Private-sector Perspective, in: MCMANIS (ed.), *supra* note 1, at 430; DE CARVALHO, *supra* note 1, at 258 *et seq*.; DUTFIELD, *supra* note 1, at 114; for objections against the registration of TK *see* TAUBMAN/LEISTNER, *supra* note 3, at 148 *et seq*.

fore, particular legal remedies may be applied for certain, but never for all subject matters of cultural heritage. On the other hand, a too broad protection must be avoided. Overprotection would not only conflict with the general interest of an efficient global economy; in the long run view the interests of the countries concerned would be harmed as well.

Woolly Lines in Intellectual Property Law

The Rt. Hon. Sir Robin Jacob

It is a pleasure and a privilege to write for Josef Straus' festschrift. He has for many years (is he really 70?) been a force for a rational and clear approach to IP law (both substantive and procedural) and particularly patent law. I hope he approves of what I say.

It goes without saying that we are all in favour of 'legal certainty,' just as we are all in favour of motherhood and apple pie. People even speak of a 'principle of legal certainty'. But how certain can laws be? And how far have legislators (and judges) in fact sought to give us clear rules which can be readily and predictably applied? It is this subject, in the context of IPRs, which I have chosen to discuss.

I begin with why. Firstly it is important to note that IPRs are in their nature intangible. They are exclusive rights – rights to stop other people doing things.[1] To be more precise, they are rights to go to court for an order that the defendant should not do acts protected by the right and for a financial remedy for any past such acts. If he fails to stop, then he will be liable to various sorts of enforcement. Ultimately in some countries that might mean sending him to prison.[2] So IPRs, unlike rights over physical things, can only be enforced by going to court. That means, in any case of uncertainty, at the very least the taking of legal advice by both sides. And of course a lot more if people decide to fight.

The next thing to observe is that the kind of activities which can be protected by IPRs range hugely – from things which may be trivial (for instance, in my country, copyright in a mundane letter) to things of enormous commercial (and even human) significance (for instance a major pharmaceutical drug). Although some legal cultures attach more significance than others to notions of creativity and IPR as an expression of personality, fundamentally IPRs are important for their *economic* effects in a competitive economy. Rights in inventions, designs and artistic works are the mainsprings of different sorts of creativity. Rights in trade marks are vital for competition to work effectively – both to enable consumers to exercise choice properly and to suppress dishonest trading.

So it is pretty important that IPRs should be clearly defined. People – mainly business people – need to know what they can, and cannot do. IPRs normally have a core – an umbra – where it is easy to say what is protected: exact copies of a copy-

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[1] One of my favourite quotes from an old barrister is: 'we are the grit in the wheels of industry.'

[2] Some countries have a system of fines, sometimes payable to the right owner. In others there is fine payable to the state. In my country we use the grandiose name 'contempt of court' for breach of a court order. In practice the remedy may run from merely paying the costs of contempt of court proceedings to imprisonment for up to 2 years, depending on the flagrancy of the breach and whether or not the defendant has a track record of breach – 'form' as the criminal lawyers would call it.

right work, or counterfeit trade marks, or an article unarguable covered by the language of a patent claim are examples of this. On the other hand there are things clearly outside an IPR – a quite different trade mark, a quite different painting, or a quite different article from that covered by the patent claim. The trouble comes with things in between: those outside the umbra but arguably within the penumbra of the right. It is that penumbra which causes all the difficulty. I call this a 'woolly line'. 'Fuzzy line' or 'a grey area' conveys the same notion. The opposite is what has come to be called a 'brightline'.

The wider its woolly edges, the more an important IPR is likely to be litigated. This is for the simple reason that there is room for divergent opinions as to the 'right' answer. And because what the right protects is commercially valuable, competitors will want to come close if they can. Now I do not subscribe to the view that it is pointless for SMEs[3] to go to the expense and trouble of patenting because they can never afford the litigation which may be required to enforce the patent. This is because in my entire experience at Bar and Bench I have never come across a case where a large company has deliberately flouted a patent or any other IPR which is clearly valid and infringed.[4] I am not so naïve as to suppose this is because there is a deep well of morality in large companies. It is simply that they cannot afford the risk.

But when it comes to woolly lines things are different. Then the deep pocket (and available management and other resources) of the large company will favour it against the SME. In practice a large company will more readily risk moving into a woolly line of a SME's IPR than the other way round. The large company can afford the litigation costs, management time and risk of losing so much more readily.

The result is this: woolly lines in IPR are unfair: they favour large enterprises against smaller ones. Some may say so what, or does it really matter? Well I think it does. The economic reasons are simply stated. Competition (including competition in innovation) is a mainspring of the economy. Few innovations, even in trade marks, are complete departures from went before. Most innovation is incremental only. For competition to flourish competitive enterprises have a reasonable need to come somewhat close to what is on the market already. If you have to stay well away from all the woolly lines of IPRs of all those already on the market, particularly those of the big companies, you will find it difficult to compete or even do anything. And, most seriously, you are likely to find you ability to innovate hampered. So woolly lined IPRs can be a threat to competitive innovation and particularly innovation by SMEs.

A good historical example of the suppression of innovation by a woolly IPR line is the use by the powerful Birmingham businessman Matthew Bolton of the James Watt patent in the early days of steam. The first steam engines (Newcomen) very wastefully condensed the steam (at close to atmospheric pressure) inside the cylinder by injecting cold water. Watt's idea was to condense the steam in a separate condenser – this avoided heating and cooling the main cylinder and piston. Trevethick

[3] Small and medium sized enterprises.
[4] And plenty of cases where they have refrained.

of Cornwall saw that if you used high pressure ('strong steam') you could simply do away with condensing the steam at all. But until expiry of the Watt patent (it had been extended through clever manoeuvring) Bolton's lawyers asserted that this different idea was covered by the Watt patent. The woolly line of Watt's patent make this arguable.[5] Bolton demanded, and through the threat of legal action got, payments on the basis of the saving of coal compared with Newcomen engines.[6] And he claimed the patent covered 'strong steam' devices. There is no doubt that this held up the development of steam really until final expiry of the Watt patent. Only with strong steam could engines become efficient enough and small enough to be mobile.

The moral objection to woolly lines is also powerful. Laws (in the widest sense including therefore the litigation system which enforces them) ought not to favour the strong against the weak, the rich against the poor.

For all these reasons I am, in principle, against woolly lines and in favour of brightlines for IPRs. Legislators and judges (for judges do make law, albeit as Justice Holmes famously said, 'incrementally') should strive to avoid the former and achieve the latter. I am not saying woolly lines are wholly unavoidable – in the nature of things some important lines are inherently so. But one should lean against them wherever possible.

I am going to examine some individual woolly lines laid down by both legislators and judges, but before I do so, I make this general observation. There are several sorts of woolly line. Firstly there can be imprecision as to what the law (the legal rule) actually is. Normally that sort of imprecision can be sorted out by a judicial decision of a senior court. But secondly, although a legal rule may be tolerably clear in itself, the rule itself may impose a woolly line. This latter sort of case is sometimes inevitable. By way of example consider trade mark law. No one doubts that it should make a defendant's use for his own goods of a trade mark which is confusingly similar to a registered mark an infringement. You cannot allow a competitor of Kodak to use Kodok. So you can lay down a legal rule the effect that confusingly similar marks must not be used for the goods of the registration. But that rule involves a question of fact – you have to decide when one mark is close to the other as to be likely to cause confusion. In borderline cases the unpredictability lies in the facts, not the legal rule. But there are other legal rules which are *unnecessarily* woolly. It is these I believe should be avoided – by legislators and courts alike.

What follows is an examination of some of the lines in IPRs and discussion of their wooliness or non-wooliness.

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[5] There were no patent claims in those days. The whole point of claims is to have certainty as to the scope of the monopoly.

[6] This particularly mattered for the mines of Cornwall. Cornwall has no coal and so the cost of transport from Wales made it very expensive.

1. Woolly Lines in Patent Law

First consider the major rules about validity. To be valid a patent must be novel, non-obvious, and enabling (sufficient). It must also not be for unpatentable subject matter.[7] How woolly are these rules?

The first of them, novelty, is a fairly precise requirement. The patent must not cover that which is old in the sense that the invention was previously made available to the public. The English case of *General Tire v Firestone*[8] contains the best formulation I know in a case of alleged novelty destruction by a prior publication (by far the most common type of case):

> If the prior inventor's publication contains a clear description of, or clear instructions to do or make, something that would have infringed the patentee's claim if carried out after the grant of the patentee's patent, the patentee's claim will have been shown to lack the necessary novelty, that is to say, it will have been anticipated. …. if carrying out the directions contained in the prior inventor's publication will inevitably result in something being made or done which, if the patentee's patent were valid, would constitute an infringement of the patentee's claim, this circumstance demonstrates that the patentee's claim has in fact been anticipated.
>
> If, on the other hand, the prior publication contains a direction which is capable of being carried out in a manner which would infringe the patentee's claim, but would be at least as likely to be carried out in a way which would not do so, the patentee's claim will not have been anticipated, although it may fail on the ground of obviousness. To anticipate the patentee's claim the prior publication must contain clear and unmistakeable directions to what the patentee claims to have invented [citations]. A signpost, however clear, upon the road to the patentee's invention will not suffice. The prior inventor must be clearly shown to have planted his flag at the precise destination before the patentee.

Perhaps some room for wooliness still exists however. Consider this example. Suppose a piece of prior art has two components nailed together and the patent claim says they should be 'fixed together'. No-one would doubt that the claim lacks novelty. But suppose the patent claim says the components should be screwed or riveted together. What then? It depends on how you believe the piece of prior art should be read. Some may say that although it only mentions fixing by nails, it clearly teaches by implication fixing by any suitable means. Others would say nails means nails only, and that fixing by any other means, although ever so obvious, is not as such disclosed.[9]

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[7] *I.e.* be 'capable of industrial application' and not be excluded by any specific rule of law, such as that laid down by Art.52 EPC.

[8] *General Tire & Rubber Co v Firestone Tyre & Rubber Co Ltd* [1972] RPC 457 at 485. See also *Synthon v SKB* [2006] RPC 323, [2005] UKHL 59 where Lord Hoffmann summarise the law of novelty thus: 'anticipation requires prior disclosure of subject-matter which, when performed, must necessarily infringe the patented invention.'

[9] Judge Rogge argued for a wider view in his lecture to the 8th Symposium of European Patent Judges, 1996, '*The Concept of Novelty with Particular Regard to Conflicting Patent Applications*', 28 IIC 794 (1997). His example was a prior art description of a soup recipe which did not mention the addition of salt. Would a later patent claim for the same recipe but with the addition of salt be anticipated? Judge Rogge thought yes, but I am not so sure. Obvious, certainly, but why not new?

Fortunately this possible difference seldom matters,[10] and I know of no case where anything turned on it. So by and large the novelty rule is non-woolly, both as rule of law and in its application.

Obviousness is another matter – it is an inherently woolly test. Let me explain why. It is clearly the case that you need an inventive step for a good patent. All patent laws provide for this in one way or another – even the 1474 Statute of Venice said the idea had to be 'ingenious'. Our present system translates the requirement into one of non-obviousness[11]. But how do you judge this? The line is inherently rather woolly. Lord Hoffmann on *Biogen v Medeva*[12] rightly said that the application of the test for obviousness is 'simply one of degree.'[13] The standard is simply not otherwise. From time to time courts and patent offices try to find or create a brightline rule for obviousness. Such attempts, to my mind, are doomed to failure. Thus questions such as 'obvious to try with a realistic (or good) expectation of success' or the more elaborate 'Cripps question'[14] or the EPO's 'problem/solution approach' or a 'teaching, suggestion or motivation' test[15] are all very well when applied to some sorts of case, but they just do not fit for all kinds of case.[16] This is hardly surprising: the statutory test is simply this: 'was the invention obvious?' All sorts of factors must be assessed before coming to the overall *value judgment* conclusion about this. I think there is a real danger in trying to create a brightline.[17] If you approach the question purely intellectually and try to use some other test as a result, you will overlook the economic balance which the patent system requires – protection for inventions but none for the obvious. For myself, I think the late TA Blanco White QC put his finger on what really matters. Has the inventor made 'a useful addition to the stock of human knowledge?'[18]

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[10] In particular normally objection of obviousness will also be available. However it can matter in the case of co-pending applications.

[11] I tend to think that the older, German concept, of 'inventive height' was a better conceptual approach, but it is too late now to make this explicit. It is probably implicit all the same: is this an idea clever enough to warrant a patent is something most judges will have in mind.

[12] *Biogen v Medeva*, October 31, 1996, [1997] RPC 1 (HL).

[13] Hence his laying down the rule that an assessment by a first instance judge should not readily be disturbed. 'Where the application of a legal standard such as negligence or obviousness involves no question of principle but is simply a matter of degree, an appellate court should be very cautious in differing from the judge's evaluation.'

[14] 'Was it for all practical purposes obvious to any skilled chemist in the state of chemical knowledge existing at the date of the patent that he could manufacture valuable therapeutic agents by making the higher alkyl resorcinols?' The question was coined by Sir Stafford Cripps in *Sharpe & Dohme v Boots* [1928] 45 RPC 153 173. There is a world of difference between 'could' and 'should' and much inwardness in the word 'valuable'. See the discussion of this question by Graham J in *Olin Mathieson v Biorex* [1970] RPC 157 at 188.

[15] Rejected by the US Supreme Court in *KSR v. Teleflex*, 127 S.Ct. 1727 (2007).

[16] For instance the problem/solution approach requires a problem. But not all inventions are solutions to problems. Only if you artificially create a problem for the purposes of applying the approach can it begin to work. But that depends on how you state the problem.

[17] The Australian High Court for instance in *Hässle v Alphapharm* [2002] 312 CLR 411 followed a 'directly led to' test which gives so little room for obviousness as to make almost anything not actually old, patentable.

[18] BLANCO WHITE, Patents for Inventions, §4-211 (4th ed. 1974).

Obviousness, then, is inherently somewhat woolly. It just can't be helped. To some extent the same goes for insufficiency. Again it goes without saying that that a patent must teach the skilled man how to perform the invention. But how much teaching he needs involves an identification of the skills of the 'person skilled in the art' and is to some extent a question of degree.

What then of the test for infringement – the test by which you decide the scope of the patent? Here it is clear that judges in different countries disagree about what is to be done. There is general agreement that you first decide on the meaning (in the English lawyer's word, 'construe') of the claim. There is now, in Europe at least, though I think it is more general, general agreement that you do not read the words in isolation – you read in them in the context of the specification and drawings.[19] When you see a word or phrase in a claim, you consider what it is *for.* But as is well-known, some say that you go further – that there is a 'doctrine of equivalents'. It is founded, perhaps, on the notion that somehow taking the inventor's idea or part of it ought to be caught even if the defendant is just outside the claim. There is no space to go far into this. What I think one can fairly say is that those who think there is or should be such a rule, are far from agreed as to what it is or should be. So, in virtually all legal systems of which I am aware which claim to have such a doctrine, it is impossible to find out exactly what the rule is. As Lord Hoffmann said in *Kirin-Amgen*[20] 'once the monopoly had been allowed to escape from the terms of the claims, it is not easy to know where its limits should be drawn.'

In short a doctrine of equivalents is a judge-made fuzzy line. I think it is a mistake for that reason alone[21]– a mistake which we do not need and which does not advance the proper function of the patent system. Both patentees and the public should work on the firm principle that the patent claim is there to define the monopoly. It is not to teach the invention. It is to be read with the eyes of a skilled man who knows that the patentee is intending to set out his monopoly in this place. A doctrine of equivalents is an unnecessary woolly line. And because it will always involve extra argument and extra evidence, it is a line which increases the cost of litigation which in turn will favour the big against the little.

I pass to one other woolly line in patent law – that about what sort of thing cannot be patented. Possibly deliberately there is no definition of 'invention' in the European Patent Convention. But there are exclusions. An examination of the *travaux préparatoires* shows a complete absence of any clear thinking about these. It was going to be left to the Judges (including the EPO in this context) to decide what the limits were. Have they done a good job? It is not for me, a Judge, to opine definitively. The EPO thinks it is doing a good job.[22] I have doubt – not only as to

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[19] Art. 69 EPC says you must.

[20] *Kirin-Amgen v Transkaryotic Therapies* [2004] UKHL 46; *Kirin-Amgen Inc v Hoechst Marion Roussel Limited* [2005] 1 All ER 667, [2005] RPC 9.

[21] There is another: it may impede innovation.

[22] The then President of the EPO, M. Pompidou, declined the suggestion I made judicially in *Aerotel v Telco* [2006] EWCA Civ 1371; [2007] RPC 7 that the Enlarged Board of Appeal should be consulted. So we press on with the uncertainty.

whether the EPO is getting it right, but as to whether anyone is. I think the line is fuzzy: what is 'technical' (a test often asked) is an easy question to ask but not to answer. Nor is there any clear policy thinking by the Judges who have to draw the lines. Or much in the way of evidence to assist them in their policy decisions. Are patents for business methods or computer programs a good way of encouraging progress or do they stand in the way of it? I do not actually know and I do not think anyone else does either. All too often you hear the assertions of those who do not doubt – believers that patents for such things are, or are not, good. So there it is – a woolly line drawn by the law itself and then its interpreters.

So, so far as patents are concerned, there are some inevitable woolly lines and a few unnecessary ones. Overall I would say it is not that bad.

2. Woolly Lines in Trade Mark Law

Things are very different in trade marks. The subject is littered with woolly lines, many of which are made by the legislature and its interpretation by the ECJ. As I have said, the question of whether one mark is confusingly similar to another is inherent in the subject and cannot be avoided. But those responsible for the legislation actually made things much harder. The result has been that since 1994 (is it only 14 years since it all started?) there have been so many references from national courts plus the many appeals to the ECJ. Over the previous century and a bit,[23] in the UK the House of Lords took only a few trade mark cases – perhaps 25 or 30. And when a point was decided it was decided. By contrast I suppose we are already near to a 100 references from national courts quite apart from the mass of appeals from OHIM Boards of Appeal. And far from the rules becoming clearer, the opposite seems to be happening. Even as I write I am preparing for a hearing about re-packaging and parallel imports. Despite 2 references to the ECJ, the parties are in dispute as to the effect of the answers – each says they mean that they have won!

I have a little, but not much, sympathy with all this. For trade mark law has aspects which remind you of quantum physics and particularly Heisenberg's principle of uncertainty: the more you clarify one aspect the woollier become others. Truly I think with confidence that no one will every come up with a clear vision of what a trade mark is or is for. Of course we can all agree about the core concept – an identifier of trade origin. But the edges will remain forever woolly.

Having said that, however, there are a serious number of unnecessary woolly lines created by the legislation. When it was drafted Member States each had about 100 years or more experience of their individual trade mark laws. The major problems thrown up by experience were known. Yet the legislation addresses none of them. It ought to have done. Not even the basic question of whether or not the defendant must be using the mark as a trade mark for his goods was

[23] The first UK registration Act was 1875.

addressed.[24] Similarly the vexed question of use in comparative advertising was left alone. It really should not have been left to European industry to pay for the ECJ to try and sort out that sort of question.

Sometimes it is said that it cannot be helped – that the legislation is a compromise. But I do not think that is a proper explanation of the failure to address these basic points. For in most cases there is no evidence of any competing positions taken by different member states. There simply was no compromise – just a failure to think and draft properly.

Let me take just a couple of other examples from the legislation. One of the types of infringement provided for is similar mark/similar goods.[25] But what on earth is one to do about 'similar goods'? It is an inherently woolly concept. What was the point of having it? Why not limit a trade mark owner's rights to the goods or services for which he is registered?

And the Court has not helped. In *Canon*[26] it seemed to hold that the more famous a mark the wider is the scope of 'similar goods,'[27] thus making a woolly line even woollier and one which expands or contracts depending on the fame of the mark at any one time.

Another example of wooliness built into the legislation is its use of the test of 'without due cause takes unfair advantage of the trade mark' as part of the extended form of protection conferred by Art. 5(2) of the Directive. This is posed for the case where a mark has a reputation and the defendant uses it (or a similar mark) for dissimilar goods or services.[28] I focus on the word 'unfair.' It is reasonably easy to decide whether the defendant's mark takes advantage of that of the trade mark owner. But when does the advantage become 'unfair'? Is honest comparative advertising 'unfair'? Some say it is – even saying truthfully 'Robin's film is half-the price of Kodak and just the same' takes advantage of fame of Kodak. Kodak might say it also is unfair because it relies upon the tremendous reputation it has built up over the years – a 'free riding'. It was not allowed under prior UK law.[29] It is almost certainly allowed now, following the Comparative Advertising Directive.[30] But a test

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[24] Only now is the Court feeling its way to an answer – see ECJ, January 25, 2007, Case C-48/05 – *Adam Opel*, [2007] OJ C 56, p.4; ECJ, May 14, 2002, Case C-2/00 – *Hölterhoff*, [2002] ECR I-4187; [2002] FSR 52. What these cases show is that the crude assumption of the Directive, that 'same mark, same goods' must be confusing and so must automatically be an infringement will not work for some situations. The court has begun to write down the assumption.

[25] Directive 89/104, Art 5(1)(b).

[26] ECJ, September 29, 1998, Case C-39/97 – *Canon*, [1998] ECR I-5507.

[27] That is how most English lawyers read it. I have been told that in OHIM they do not so read it – I do not blame them for ignoring it. What the Court said is impractical for a working office – which needs to develop and have an objective standard reached by collection of decisions on where the line is to be drawn – to de-woolly the line as far as possible.

[28] The court has decided the test also applies for similar goods, plugging a blunder in the legislation, see ECJ, January 9, 2003, Case C-292/00– *Davidoff*, [2003] ECR I-389.

[29] Section 4(1)(b) of the Trade Marks Act 1938, *Bismag v Amblins* [1940] 57 RPC 209.

[30] Directive 97/55/EC of European Parliament and of the Council of 6 October 1997 amending Directive 84/450/EEC concerning misleading advertising so as to include comparative advertising, [1997] OJ L 290, p. 18-23.

as imprecise as 'unfair' is dangerous – particularly across Europe where different judicial cultures as to freedom to compete abound. What is 'unfair' to one man is just fair competition to another. The Court of Justice will have to try to sort out what is meant by unfair and will have to grapple with the problem in the pending references from my court in *O2 v Hutchison*[31] and *L'Oreal v Bellure*[32]. I do not envy them the job for, try as they might, I think the test will remain forever woolly.

3. Unfair Competition Laws Generally

That brings me to consider the more general subject of laws directed at unfair competition generally. We can all agree that a trader who deceives the public ought to be stopped. That is clearly 'unfair'. But to what extent should the law go further? I am no great expert, but it is generally known that many countries have some sort of law aimed at 'unfair' competition and that some of the laws, as applied, do go further than merely stopping deceptive or misleading activities. I freely confess that I do not know why. We have specific laws aimed at creating monopolies or quasi-monopolies as exceptions on the grounds of public interest to the general rule that competition should be free. The exceptions each have a rationale, encouragement of innovation and investment (patents), protection of creativity (copyright and designs) and so on. Why add anything to these? If you do, you are almost certain to add a woolly lined rule. And you are leaving it to judges who are not necessarily the best persons to make policy.

Judicially I put it this way in *L'Oreal*:

> [161] So, I think the tort of passing off cannot and should not be extended into some general law of unfair competition. True it is that trading conditions have changed somewhat over time – but I cannot identify any particular change which makes a general tort of unfair competition desirable, still less necessary. If the courts (or indeed Parliament) were to create such a tort it would be of wholly uncertain scope – one would truly have let the genie out of the bottle. Accordingly I would dismiss the 'unfair competition' appeal.

I would add that I find it most interesting that Germany re-wrote its unfair competition law in 2004. As I understand it it was the very purpose of reigning in and tightening up the woolly, and overbroad lines of the previous law. Sensible indeed in my view.

Before passing from this topic I wish to add one other thing – the danger of the use of the word 'misappropriation'. The concept is inherently woolly. This is what I said about it in *L'Oreal*:

> [160] Some commentators, generally those who support some wider tort, use the word 'misappropriation' of goodwill to designate it, see e.g. Hazel Carty, *The Common Law and the Quest for the IP Effect*, [2007] IPQ 237. I am not sure where I first saw the word used in this context, though I believe it to have come from the USA. I wish to

[31] [2006] EWCA Civ 1656, [2007] RPC 407. The ECJ has now answered this with a fairly clear non-woolly-line answer. Honest and true comparative advertising does not infringe.

[32] [2007] EWCA Civ 968, [2008] ETMR 1, [2008] RPC 196.

> state that I think it very unhelpful. We are all against misappropriation, just as we are all in favour of mother and apple pie. To use the word in the context of a debate about the limits of the tort of passing off and its interface with legitimate trade is at best muddling and at worst tendentious.

Extra-judicially I adhere that view.

4. Woolly lines in copyright law

The most famous of these is the idea/expression dichotomy. No amount of legislation can make this precise. Judge Learned Hand said of it: 'Nobody has ever been able to fix that boundary and nobody ever can.'[33] All that can say is that the court is left with a sort of value judgment – if too much detail is taken then there will be infringement, if hardly any, then just the legitimate taking of an idea.

Another area of copyright law where there may be difficulty due to wooliness relates to 'originality.' There are actually two sorts of possible wooliness. First there is the law: what is meant by 'original?' Will 'sweat of the brow' alone do, as it did for the English, thus giving copyright to things like telephone books, TV programme listings and football fixture lists. If not what more is needed? Is the court to decide what art is? The second woolly line is factual – just how close can a copyist go? One test for this, sometimes applied by a court when it is feeling moralistic, is 'anything worth copying is worth protecting'.[34]

Another famous woolly line is the 'fair use' exception to copyright infringement. If you set that as the standard for escaping infringement you will, as the US cases show, never come to an end of it. Almost certainly for that reason the English copyright legislator has always tried to tie down fair use to something more specific. So there is a long list of specific exceptions. Which is the better approach? The danger of a general 'fair use' is its wooliness, the danger of specific exceptions is that a deserving new kind of activity (home transfer of format, tape to DVD or loading from your own CD to iPod) will have no exception unless and until it freshly legislated.

5. Woolly lines in design law

Design laws differ markedly from country to country and even within a country. In my lifetime the UK has had a whole host of them. This tells you something: that the legislator has no clear view as to what should, and should not, be protected. Wooliness is an inevitable result. For the sake of convenience and intelligibility across Europe I propose to consider just the new European registered design legislation, Reg. 6/2002.

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[33] *Nichols v. Universal Pictures*, 45 F.2d 119 (2nd Cir. 1930).

[34] *University of London Press v University Tutorial Press* [1916] Ch 601 about copyright in examination papers. The expression is sometimes used to justify the subsistence of copyright and sometimes to justify a finding of infringement. Either way it proves too much.

This legislation is strewn with woolly lines. There is first the 'individual character' test. Recital 4 puts it this way:

> whether the overall impression produced on an informed user viewing the design clearly differs from that produced on him by the existing design corpus, taking into consideration the nature of the product to which the design is applied or in which it is incorporated, and in particular the industrial sector to which it belongs and the degree of freedom of the designer in developing the design.

That raises a host of imprecise concepts: 'existing design corpus' 'informed user' 'industrial sector to which it belongs.' I recently struggled with some of this in *Proctor & Gamble v Reckitt.*[35]

Could the legislature have done better? I rather think so but in the end it may not matter. For in my experience in the end in design cases the court tends to go by gut reaction rather than the precise legal language of the law. Maybe one should not say that, but then, why not?

6. Conclusion

This short overview of some IPR woolly lines is intended to do a number of things. Most importantly it is to alert legislators to concentrate hard on avoiding them for all the reasons I identify at the outset. Secondly, and almost equally importantly it is to urge judges to do the same thing in their decisions. Thirdly it is to invite academics and other thinkers to identify IPR woolly lines, especially unnecessary ones to guide future reform. Fourthly it is to suggest that readers themselves think about other woolly lines, whether they are inevitable or whether they could be brighter and if so how.

[35] *Procter & Gamble v Reckitt Benckise Ltd* [2007] EWCA Civ 936.

Economic Perils of U.S. Patent Reform: Flexibility's Achilles Heel

F. Scott Kieff

Patent reform is a hot issue in the United States. After holding multiple hearings[1] surrounding a joint House and Senate bill sponsored by Democrats and Republicans alike,[2] the House voted to adopt a version of the legislation in September 2007,[3] and the Senate may still act as well. Large newspapers such as the *New York Times* and *Wall Street Journal* are also on board, both publishing on the topic from the same perspective on the same day in June 2007,[4] and again during the same week in July.[5] With such unanimity among such large players, there's a good chance their approach is one on which reasonable minds cannot disagree. But there's also a chance it's just one more time that some big players are simply talking amongst themselves, to the detriment of overall American innovation, competition, economic growth, and jobs.

The *Times'* editorial 'A Patent Lie' applauds the day when the software industry was free of patents and celebrates the innovations made by the single large player in that industry at the time.[6] The *Journal's* editorial 'Patent Bending' calls for better patents and less litigation and applauds changes that make it more difficult to obtain or keep a patent by granting a government administrator or judge greater flexibility and discretion in various procedures designed to determine whether a patent should issue or remain in force.[7] At the same time, the *Journal's* story 'Businesses Battle over Patent Law' and its OpEd 'Patent Nonsense' by Intel's top lawyer both say that big companies want this added flexibility because they are more likely to be ensnared in patent cases.[8]

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1 *See* Oversight Hearing before the House Committee on the Judiciary, Subcommittee on Courts, the Internet, and Intellectual Property on American Innovation at Risk: The Case for Patent Reform, February 15, 2007; Hearing before the House Small Business Committee on The Importance of the Patent System on Small Business, March 29, 2007; Hearing before the House Committee on the Judiciary, Subcommittee on Courts, the Internet, and Intellectual Property on H.R. 1908, The Patent Reform Act of 2007, April 26, 2007; Hearing before the Senate Judiciary Committee on Patent Reform: The Future of American Innovation, June 6, 2007.

2 *See* Patent Reform Act of 2007, introduced as a bicameral and bipartisan bill under the titles H.R. 1908 and S. 1145 on April 18, 2007, by, *inter alia*, Sens. Leahy (D) and Hatch (R), as well as Reps. Berman (D) and Smith (R).

3 HR 1908 passed 220-175 on Sept. 7, 2007.

4 TIMIRAOS, 'Businesses Battle Over Patent Laws', Wall St. J., June 9, 2007, A7; 'Patent Bending', Wall St. J., June 9, 2007, A8; LEE, 'A Patent Lie', N.Y. Times, June 9, 2007.

5 SEWELL, 'Patent Nonsense', Wall St. J., July 12, 2007, A15; FITZGERALD, 'A Patent Is Worth Having, Right? Well, Maybe Not', N.Y. Times, July 15, 2007.

6 LEE, *supra* note 4.

7 LEE, *supra* note 4.

8 TIMIRAOS, *supra* note 4; SEWELL, *supra* note 5.

1. Flexibility's False Foundations

All of these efforts seem to forget flexibility's Achilles Heel, and are wrong in thinking that what's good for some big businesses is always good for business overall. By increasing the discretion of government bureaucrats, flexibility increases uncertainty, not decreases it, and it gives a built-in advantage to large companies with hefty lobbying and litigation budgets. That may be a big reason why some big firms want it.

Many of these so-called reforms to the patent system are related; but go by various names, such as enhanced examination, opposition, re-examination, and second-window review. They are like the recent US Supreme Court's decision in the *KSR* case, which many see as having raised the bar for the obviousness standard by injecting more discretion into the determination of this central issue for most patent cases.[9] The stated goal is to make it easier for decision makers to reject patents, usually on the basis of what is known as prior art, whether the claimed invention had been previously known or used (novelty) or was just about to be (obviousness).

Under today's law, determinations about the prior art are largely questions of fact, based on evidence such as documents and factual testimony, as compared with opinion testimony. Every patent litigator remembers the famous cases of the single student theses catalogued and shelved in the libraries at Freiburg University in Germany or Reed College in Portland, Oregon, which collectively remind that factual proof is required to show not just what such documents contain, but also when they were both physically available to the public and logically available to an interested searcher through some meaningful indexing system like a subject matter catalog.[10]

The central issue presented in the *KSR* case is whether expert opinion testimony in court when adopted at the discretion of a federal judge is enough to prove what would have been obvious to a person having ordinary skill in the art of the patentee at the time in history when the patentee made an invention. Patent critics see the *KSR* case as standing for the proposition that government decision-makers like judges now have increased discretion to pronounce what the prior art teaches; and they applaud that result, hoping to see it applied in court and during initial Patent Office examination. For example, examiners would be able to block patents on the basis of their own assertions about what the state of the art was at a particular time in history, without having to rely on the factual proof, such as documents and sample products, which has long been required. Others think the case was narrowly decided on its facts and that the relevant inquiry remains an objective determination of precisely what was taught by the particular combination of relevant pieces of prior art.

Importantly, although debate over the actual legal impact the Supreme Court may have had with its *KSR* decision may be moot if the proposed statutory changes are adopted, those changes would implement the same flexible approach urged by one side of the *KSR* debate. And even if the proposed changes are not adopted, the

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[9] *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007).

[10] *See In re Hall*, 781 F.2d 897, 898–900 (Fed. Cir. 1986); In re Cronyn, 890 F.2d 1158, 1161 (Fed. Cir. 1989).

flexibility agenda can still be urged through subsequent court interpretations of *KSR*.

As a result, it is essential that everyone now take a moment to more fully consider the wisdom of the flexibility approach. A more complete recognition of the real factors underlying decisions about patents will help us all constructively explore ways to improve the system. Regrettably, the flexibility approach relies on two false premises about how the system actually works.

The first false premise is that beefing up the patent examiner's resources would help her find the key prior art. Of course, our examining corps should have good access to Internet databases and ample time and training to peruse them. But no realistically available amount of time and training will help an examiner at her desk obtain the laboratory notebook of an individual researcher at some company or university or an obscure student thesis on the bookshelf of a foreign library, which is where the key prior art often is found.

The second false premise is that decisions in court or in an agency such as the Patent Office that are made on the basis of discretion, rather than facts, can be immune from political and other pressure. Giving courts and examiners a pass from having to get this hard evidence does not come without serious cost. Asking a decision maker to use her legal or technical expertise to inform what she thinks the state of the art was at a particular time in history gives her greater discretion than asking an ordinary jury whether a particular document or sample product existed at a particular time and what that document actually contains. Even ordinary lay juries can be particularly adept at making such factual determinations, which is a central reason we have a Constitutional Right to jury trials in every criminal case and in most civil cases involving a legal remedy such as damages (as opposed to only an equitable remedy such as an injunction). Because large firms have fatter lobbying and litigation budgets than smaller innovators, such discretion converts the patent system into a tool for suppressing competition by making it much easier for big firms to tie up any patent owned by a small innovator.

2. History's Lessons

Concepts such as flexibility, balance, discretion, and subjectivity are not at all new to our patent system. We've tried them before, in ways that are strikingly similar to those proposed today. Although the product of well intentioned efforts, the results in each setting were consistent, and bad.

The first part of the 1900s was a time of economic growth followed by the Great Depression. Created in 1938, President Roosevelt's Temporary National Economic Commission specifically targeted patents under the misguided sense that they led to the 'concentration of economic power.'[11] By a decade later, the entire patent system had become practically decimated by the courts.

Determinations about a patent's validity typically boiled down to a flexible but tautological standard: To be patentable, an invention had to constitute what a judge

[11] Public Resolution No. 113, 75th Cong. (1938).

considered to be an 'invention.' Some courts treated this as a 'synergism' test under which patents would be valid only when the claimed invention combined existing elements to achieve a magically synergistic effect.[12] The test became so vague and yet so difficult to satisfy that Justice Jackson remarked in 1949 that '[T]he only patent that is valid is one which this court has not been able to get its hands on.'[13]

At the same time, patentee's options for licensing or bringing infringement suits were severely curtailed through the 1930s and '40s as courts virtually eliminated the patent law doctrines of contributory infringement and inducement of infringement. The doctrines of inducement of infringement and contributory infringement hold a defendant accountable as an infringer for acts of infringement by third parties if the defendant's actions were the cause of the third party's infringement. By the late 1940s, the Court had effectively eliminated these doctrines by holding that such suits improperly extended the patent beyond the scope of the claims, thereby raising antitrust-type concerns and constituting misuse of the patent.[14]

In response, Congress passed the 1952 Patent Act. The '52 Act codified the doctrines of contributory and induced infringement through Section 271; and set forth an objective test for patentability called 'nonobviousness' in Section 103.

Avoiding the usual process of extensive interest group lobbying, which typically leads to balance in the sense of acquiescence to a compromise agenda from opposing claimants intensely competing for the same turf, the '52 Act represented the consensus views of legal technicians interested in developing a system that was balanced in the different sense of logical coherence. Having successfully revived trademark law in 1948 through the Lanham Act, the New York Patent Law Association asked its past president, Giles Rich, to draft a bill for introduction in Congress that would provide a more predictable framework for patent law.[15] Legislative efforts in this direction continued in subsequent Congresses, leading to the formation of a National Coordinating Committee, a two-man Drafting Committee including Rich, and extensive Congressional testimony from representatives of diverse groups, again including Rich as representative of the Bar.[16] The result was the '52 Act, which substantially remains the patent law today.[17]

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[12] *Great Atlantic Tea & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152 (1950) (requiring every patent to be held invalid where 'two plus two have been added together, and still they make only four').

[13] *Jurgensen v. Ostby & Barton Co.*, 335 U.S. 560, 572 (1949) (Jackson, J., dissenting).

[14] *See* RICH, Congressional Intent – or, Who Wrote the Patent Act of 1952, (reprinted in WITHERSPOON, Nonobviousness – The Ultimate Condition of Patentability 1:1, 1:3 (1979); KIEFF/PAREDES, The Basics Matter: At the Periphery of Intellectual Property, 73 Geo. Wash. L. Rev. 174 (2004).

[15] *See* RICH. *id*.

[16] *See* RICH, *id.* at 1:3-1:10.

[17] For more on the history of the 1952 Patent Act see *Dawson Chem. v. Rohm and Haas*, 448 U.S. 176 (1980); Federico, 75 J. Pat. Off. Soc'y 161 (1993); *Graham v. John Deere*, 383 U.S. 1, 14 (1966) (specifically highlighting the similarity between section 103's first sentence and the language of the Hotchkiss case); *United States v. Adams*, 383 U.S. 39, 50 (1966) (showing how the statutory approach differs from the synergism approach).

Premised on the view that predictability would best suit all those impacted by the patent system, the wisdom of the '52 Act was applauded by the leading jurists and thinkers in commercial law of the time, such as Learned Hand and Jerome Frank. Both before and after the '52 Act, Judge Hand repeatedly called for courts to follow an objective approach to patent validity determinations.[18] As he explained when criticizing the absurdity of the synergism test: '[s]ubstantially all inventions are the combination of old elements; what counts is the selection, out of all their possible permutations, of that new combination which will be serviceable.'[19] Writing later, Giles Rich went further in explaining that a synergism test makes no sense because '[t]he laws of physics and chemistry in accordance with which all inventions perform do not permit of the judicially imagined magic according to which 2+2=5.'[20] Judge Frank put the net impact of the more objective approach very simply: patents produced by such a system can be the vital slingshots smaller innovative 'Davids' use to compete against large established 'Goliaths.'[21]

Predictable patents are great for competition. Just compare the natural experiments that history has provided in the context of the computer software and biotechnology industries.

In both the software and biotechnology settings, patents were effectively eliminated through a set of flexible, judge-made, rules that allowed a judge or examiner to consider the claimed invention to be too close to what she saw as either an abstract idea or the essence of life. In both cases the courts eventually returned their focus to the wording of the statute, which included no such express exclusions and instead focused on the facts of the prior art and the text of the patent application and issued patent.[22]

Remember that the US software industry of the 1970s and '80s was rendered devoid of meaningful patent protection while the industry became infamously asso-

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[18] Judge Hand, and other appellate judges, recognized that courts were faced with a choice before the '52 Act between two lines of Supreme Court cases. One, which they preferred for its objectivity, was associated with *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248 (1850). The other was associated with the then newer tests for invention or synergism, both of which were nonsensical in application. *See*, *e.g.*, *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530 (2d Cir. 1955) (Hand, J.); *R.M. Palmer Co. v. Luden's, Inc.*, 236 F.2d 496, 499–500 (3d Cir. 1956); *Brown v. Brock*, 240 F.2d 723, 727 (4th Cir. 1957); *Reiner v. I. Leon Co.*, 285 F.2d 501, 501 (2d Cir. 1960) (Hand, J.); *Mott Corp. v. Sunflower Indus., Inc.,* 314 F.2d 872, 879 (10th Cir. 1963).

[19] *Safety Car Heating & Lighting Co. v. General Elec. Co.,* 155 F.2d 937, 939 (2d Cir. 1946) (Hand, J.).

[20] RICH, Laying the Ghost of the 'Invention' Requirement, 1 Am. Pat. L. Ass'n Q. J. 26, 44 (1972).

[21] *See Picard v. United Aircraft Corp.*, 128 F.2d 632, 643–644 (2d Cir. 1942) (Frank, J. dissenting).

[22] For more on the theory underlying the rules for obtaining patents, *see* KIEFF, The Case for Registering Patents and the Law and Economics of Present Patent-Obtaining Rules, 45 B.C. L. Rev. 55 (2003).

ciated with a single large player, Microsoft.[23] And just as the lack of patents in software was connected to a lack of competition, the arrival of patents in biotechnology has been connected with a large increase in competition, as well as downstream commercialization of new technologies. Among the United States, Europe, and Japan, only the United States acted to allow patents, in basic biotechnology, beginning with the Supreme Court's 1980 *Chakrabarty* decision.[24] And only in the United States, and only since 1980, has the biotechnology industry also included a steady pool of roughly 1,400 small- and medium-sized companies that is consistently turning over.[25] The unique growth in the US biotechnology industry has directly benefited both the basic biological research community, by providing expanded resources such as funding, and the general public, by providing better goods and services in important industries such as healthcare.[26]

3. Theory's Lessons

As recently elucidated by Henry Smith, enforcing IP with rights to exclude – also called 'property rules' – can mitigate the high information costs associated with information-based assets.[27] But treating IP as property has at least three additional important benefits: First, it improves socially constructive coordination that facilitates the complex process of commercializing innovation. Second, the lack of property treatment facilitates the socially destructive coordination among large players employing a '*keiretsu*' strategy of collusion. Third, property treatment helps to mitigate those transaction and public choice costs that are associated with political, as compared to economic, markets. Finally, much of the literature on the law and economics of IP goes too far by overestimating the so-called 'anticommons' objection to treating IP as property.[28]

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[23] *See Gottschalk v. Benson*, 409 U.S. 63 (1972) (essentially eliminating patents for software). *See also*, *In re Johnston*, 502 F.2d 765, 772–774 (CCPA 1974) (Rich, J., dissenting) (noting normative problems with such a rule against software patents but pointing out the appellate court's duty to follow the Supreme Court case law on the issue). The *Benson* approach remained in effect until The Court changed views in *Diamond v. Diehr*, 450 U.S. 175 (1981) (holding there to be no *per se* exclusion for software patents). Nevertheless it was not until *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) (*in banc*) and perhaps even *State Street Bank & Trust Co. v. Signature Fin. Group Inc.,* 149 F.3d 1368 (Fed. Cir. 1998) *cert. denied*, 119 S. Ct. 851 (1999) that the market fully responded to the availability of patent protection for software.

[24] *Diamond v. Chakrabarty*, 447 U.S. 303, 309–318 (1980) (holding that living organisms are not *per se* unpatentable).

[25] GARDNER, NIH: Moving Research from the Bench to the Bedside: Hearing Before the Subcomm. on Health of the H. Comm. on Energy and Commerce, 108th Cong. 47 (2003), available at <http://energycommerce.house.gov/reparchives/108/Hearings/07102003hearing990/print.htm> (as of June 2008).

[26] COCKBURN ET AL., Pharmaceuticals and Biotechnology, in MOWERY (ed.), U.S. Industry in 2000 Studies in Competitive Performance 389-92 (1999) (reviewing relative performance of the U.S. biotechnology industry).

[27] SMITH, Intellectual Property as Property: Delineating Entitlements in Information, 116 Yale L.J. 1742 (2007).

[28] The ideas explored here are covered in more depth in KIEFF, Coordination, Property, and Intellectual Property: An Unconventional Approach to Anticompetitive Effects and Downstream Access, 56 Emory L.J. 327 (2006).

Treating IP as property with rights to exclude provides significant incentives for parties to collaborate, helping to solve a key problem that would otherwise frustrate the socially constructive coordination that facilitates commercialization of innovation. Consider patents as an example of this solution in action. Bringing an invention to market requires coordination among its many complementary users, including developers, managers, laborers, other technologists, financiers, manufacturers, marketers, and distributors. This socially constructive coordination depends in at least two fundamental ways on the expectation that patents will be enforced with strong property protection.

First, the credible threat of exclusion associated with a published patent acts like a beacon in the dark, drawing to itself all those interested in the patented subject matter. This beacon effect motivates these diverse actors to interact with each other and with the patentee, starting conversations among the relevant parties.

Although so many on the so-called 'pro-IP side' of the IP literature, like Joseph Schumpeter and Edmund Kitch, maintain that the IP owner should be able to control uses,[29] we should be agnostic about who should control the ensuing negotiations. Because we cannot know ex ante who will be best for that role, we should leave this determination to the particular facts of each negotiation. As the beacon effect highlights, facilitating coordination among interested parties is a less aggressive goal than assigning control to a particular party like the IP owner.

Second, the widespread expectation that the patent will be enforced motivates each of these parties to reach agreement with one another over the use and deployment of the technology. This bargaining effect falls apart if the parties are unsure the patent will be enforced because, in that case, there is significantly less need to reach agreement ex ante. The fear of weak enforcement creates a disincentive for the necessary parties to work together at the outset.

The IP literature has not devoted much focus to the mechanism by which this breakdown occurs. While Robert Merges focuses on how property rules give IP owners access to more remedies than liability rules, which in turn give them greater control, it is important to see how property rule treatment improves incentives for everyone in the bargaining process, not just the IP owner.[30] Smith, Merges, and Richard Epstein have all examined the information cost advantages of property rules in their scholarship,[31] and work by Louis Kaplow and Steven Shavell has explored the risk that liability rules will lead to undercompensation of property owners because of multiple takings.[32] But none of these IP scholars focuses on how

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[29] SCHUMPETER, Capitalism, Socialism, And Democracy (3d ed. 1950); KITCH, The Nature and Function of the Patent System, 20 J.L. & Econ. 265 (1977).

[30] MERGES, A Transactional View of Property Rights, 20 Berkeley Tech. L.J. 1477, 1505 note 76 (2005).

[31] EPSTEIN, A Clear View of The Cathedral: The Dominance of Property Rules, 106 Yale L.J. 2091 (1997); MERGES, Of Property Rules, Coase, and Intellectual Property, 94 Colum. L. Rev. 2655 (1994); SMITH, The Language of Property: Form, Context, and Audience, 55 Stan. L. Rev. 1005 (2003).

[32] KAPLOW/SHAVELL, Property Rules Versus Liability Rules: An Economic Analysis, 109 Harv. L. Rev. 713 note 61 (1996).

adopting liability rather than property rules can impede coordination among takers and dissipate the incentives that parties other than the IP owner have to consummate a deal.

Knowing there is a good chance that a court employing a liability rule approach will set a lower price than the IP owner would accept, some potential infringers may first try for a low damage award from the court, rather than consummate a deal up front with the IP owner, and then later make a deal if the court award is too high. The prospect that infringement may be an attractive option to some can decrease the incentives for all others to attempt or consummate a deal ex ante, thereby weakening both the beacon effect and the bargain effect.

In addition, while liability rules focus on price, deals involving IP often hinge on complex terms other than price, especially early in the process of commercializing new technologies. These terms often involve assets that are difficult to hedge, diversify, or insure, such as a particular individual's unique skills, time, and relationships, as well as specialized technical support, field-of-use or territory limitations, grant-backs, cross-licenses, payment schedules, and most-favored-nation provisions.

The problem is that a court-imposed damage award, which is emblematic of liability rule treatment, is in all but the rarest of cases reduced to a simple monetary amount. The promise of some share of a possible damages award does little to mitigate risk of loss of these other relatively unique assets for either the IP owner or the other parties involved.

For this reason, the helpful strategies explored by Ian Ayres for achieving similar or even superior results through liability rules[33] hinge on whether those impacted are portfolio players. That is, Ayres' strategies favor those large, portfolio players who can more easily hedge, diversify, and insure the assets they are considering investing in these deals over smaller players making unique investments. For these smaller players and others relying on unique assets, though, property rules are more likely to protect their interests, thus helping them to coordinate.

Of course, coordination also has a socially destructive side, which is too often overlooked in the IP literature. Liability protection in IP helps large companies engage in this undesirable collusion. Consider what might be called a '*keiretsu*' strategy for dealing with patents. The term *keiretsu* refers to the large conglomerates in Japan, where the patent system holds a great, many weak patents and almost no strong ones. The transaction costs of litigation and conflict that arise in a system populated only by large numbers of low-value patents can be of real help to large companies like the *keiretsu*, because the system makes it easy for them to have many patent skirmishes while avoiding the threat of death blows. These skirmishes are beneficial for those fighting because they solve two practical problems impeding socially destructive coordination among large players: trust and antitrust.

First, they mitigate the trust problem by allowing the battling players to communicate with each other in a way that may be more forthright than a direct conversation. Where an opponent spends resources to fight, and yields to save resources, can

[33] AYRES, Optional Law: The Structure of Legal Entitlements (2005).

say more than a direct conversation about what territory is most coveted. In the meantime, the extensive exchanges of documents and sworn deposition testimonies that are so infamously ingrained in litigation, especially in the U.S. system, further help those playing the *keiretsu* strategy to communicate vast quantities of more detailed information.

Second, these lawsuits mitigate the antitrust problem by allowing the *keiretsu* to share information with each other in a way that may be more protected from antitrust review than a direct conversation. Taking one territory while giving up another through a set of court battles and related settlements will more easily escape scrutiny – and will also more effectively mitigate the penalties imposed if any antitrust action is brought and won – than would a direct conversation to divide these territories. Ensuring that each deal is struck in front of a federal judge helps decrease both the likelihood of scrutiny by antitrust enforcers and the chance that a later judge or jury will side with those enforcers and determine that the conduct was so egregious as to merit a particularly harsh civil or criminal penalty.

Large players are particularly likely to succeed in this *keiretsu* strategy if they can be assured that only weak patents are available, because patents with strong property protection could become the slingshots by which the Davids take down the Goliaths. Conveniently for such large established firms, they typically have the strong lobbying budgets and contacts to ensure, through the public choice process, that weak patents predominate, as discussed below.

Focusing on information costs, Smith argues that the greater cost-effectiveness of governance regimes explains the more regulatory nature of copyright versus patent law. Smith is correct in highlighting the ways in which the copyright regime is based more on flexibility and governance, while the patent regime is based more on predictability and exclusion. But such differences also may be explained in part through public choice theories that see government legislators, regulators, and judges not as acting solely in the interest of the public at large, but also as acting in their own self interest. Like market actors, these government agents may be particularly responsive to the desires of those able to offer significant political or financial capital.[34]

Taking seriously the notion that more is not always better, IP scholars should pay more attention to how the entitlements are structured rather than simply how many there are. Entitlements generally become easier for diverse market actors to use and tend to encourage economic growth and competition the more that those entitlements have attributes that facilitate predictable enforcement, ease of trade, bundling, and dividing, and the more that they force users of those entitlements to deal with private individuals. In contrast, when entitlements have attributes that can only be created or changed at the discretion of government actors and otherwise

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[34] *See, e.g.*, STIGLER, The Theory of Economic Regulation, 2 Bell J. Econ. & Mgmt. Sci. 3 (1971) (explaining how concentrated benefits lead to particular regulatory approaches); *see also* HABER, Introduction: The Political Economy of Crony Capitalism, in: CRONY (ed.) Capitalism and Economic Growth in Latin America: Theory and Evidence, at xi (2002), (adducing data for 'crony capitalism' theory of regulation).

have fixed owners and contours, users of those entitlements have to deal more with government, which tends to concentrate wealth and power in political actors like regulators and influential constituents.

Under this view, it makes sense that the copyright regime, having been drafted and regularly redrafted with an eye towards balance among politically powerful constituents, has ended up featuring more flexible governance, and that the patent system promulgated through the 1952 Act, having been drafted with an eye towards coherence, ended up employing more predictable exclusion.

It also is no surprise that the governance regime of copyright is not always even flexible. For example, in promulgating immutable, rather than default, rules for what constitutes fair use, preemption, and misuse, the copyright system protects established industries by leaving potential market entrants unclear as to what coordinating deals can be struck – if not certain that important deals cannot be struck.

Of course, the patent regime is not immune from these same public choice effects. Consider prior patent reform efforts focused on compromise, such as the reforms to better balance the interests of branded and generic drug companies.[35] The current patent reform efforts are other examples.

Critics of property rights in patents focus on the transaction costs of economic markets and bemoan the purported problems of so-called upstream patents blocking downstream work, thereby creating an 'anticommons,' especially in basic science. Regrettably, the literature in general is too generous in suggesting the extent to which questions about the patent anticommons remain open.

The dichotomy between upstream and downstream is false and narcissistic. These terms apply to anything to be bought and anything to be sold by any particular individual – who will of course have some interest in having everything she needs to buy be free and everything she wants to sell to be protected with property rights. The high flexibility of this dichotomy leaves it well-positioned as a tool for pernicious public choice pressure.

Moreover, there is no serious 'patent thicket' or anticommons problem with a system in which patents are designed and treated like predictable property. If anything, the flexibility of governance approaches raise the problem more seriously, as Richard Epstein noted in his work on 'permit thickets'[36] and as the political economy literature notes when discussing 'License Raj' in India.[37]

Michael Heller's important initial work on the anticommons problem sought to explain why so many storefronts in the postsocialist economies were left unused.

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[35] *ee, e.g.*, Drug Price Competition and Patent Term Restoration Act (Hatch-Waxman Act), Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified as amended at 21 U.S.C. § 355 (2000); 35 U.S.C. §§ 156, 271 (2000)); *see also* FED. TRADE COMM'N, Generic Drug Entry Prior to Patent Expiration: An FTC Study (2002) (describing collusion problems with the Hatch-Waxman Act and collecting sources).

[36] EPSTEIN, The Permit Power Meets the Constitution, 81 Iowa L. Rev. 407 (1995).

[37] PARIKH/WEINGAST, A Comparative Theory of Federalism: India, 83 Va. L. Rev. 1593, 1608 (1997) ('This system, known in India as License Raj, means that the center retains control over the distribution of permits and licenses for new areas of economic development through the relevant central ministry.').

Heller found that a large number of bureaucrats were able to deny permission for the space to be used and called the resulting underuse an 'anticommons.'[38]

More recent work claiming an anticommons problem for patents mistakenly stresses this fragmentation of interest – that is, how many different people have a say over an asset's use – as the key to the anticommons effect.[39] More important than the number of people who have a say, however, is the type of people with a say and the type of say they have. By focusing on the number of patent permissions needed to use a technology, patent critics have ginned up arguments that the patent system creates an anticommons.

The U.S. patent system is fundamentally different from the unused storefronts of the postsocialist economy. As Epstein and Bruce Kuhlik have pointed out, where the permission of postsocialist bureaucrats was required, efforts by the bureaucrats to openly trade their permission for personal gain were likely to trigger various forms of legal liability for graft, bribery, public corruption, and the like.[40] Patent rights are different, because a U.S. patent owner has incentives to engage in, not avoid, open transactions. Transactions over patents are not only allowable; they are important to monetizing the value of any asset like a patent that is constantly declining in value due to its limited statutory term and the threat of new competing technologies, especially given the limited ways to extract value from an asset that confers only a right to exclude and not a right to use. Patentees have a strong incentive to encourage use, not to block it. Furthermore, transactions over patents are also different from transactions with postsocialist bureaucrats in the way the law enforces patent-related transactions. Unlike the bureaucratic permissions of the postsocialist state over which transactions so often failed, patents are more clear and certain, and their owner can be easily discovered for free on the Internet.[41] In addition, courts readily enforce whatever licenses or assignments are sold by the patentee, against her and those with whom she is in privity.

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[38] HELLER, The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, 111 Harv. L. Rev. 621, 624 (1998) (arguing that '[w]hen there are too many owners holding rights of exclusion [in a resource], the resource is prone to underuse').

[39] *See, e.g.*, HELLER, The Boundaries of Private Property, 108 Yale L.J. 1163, 1174–75 (1999) (describing how 'the proliferation of intellectual property rights in upstream research may be stifling life-saving innovations further downstream in the course of research and product development'); HELLER/EISENBERG, 'Can Patents Deter Innovation? The Anticommons in Biomedical Research', 280 Science 698, 700 (1998) (emphasizing fragmentation and arguing that it creates an anticommons in IP).

[40] EPSTEIN/KUHLIK, Navigating the Anticommons for Pharmaceutical Patents: Steady the Course on Hatch-Waxman, Univ. of Chicago Law Sch. John M. Olin Program in Law & Econ. Working Paper No. 209 (2d ser.), at 4 (2004) ('But the state bureaucrat is not the owner of any asset whose value will remain unlocked unless he brings it to market.').

[41] *See* U.S. Patent and Trademark Office Full Text and Image Database Search Page, <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> (free searching to yield relevant patents) (as of June 2008); Assignment Search Page, <http://assignments.uspto.gov/assignments/q?db=pat> (free searching of property interests in patents by several fields including patent number) (as of June 2008).

Several rigorous surveys of basic scientists have sought to determine as a matter of fact whether patents are interfering with their work, and their answer is a resounding 'no.'[42] Despite the existence of many patents in basic science with many diverse owners, there is no evidence that a significant number of scientists are held up by the need for patent permissions. Many are given express permission for free, and many others are in effect given free permission because the patents are not enforced against them. On other occasions, licensing arrangements are successfully negotiated using low transaction business models like the freezer programs for selling biological reagents. When needed, lawyers can fill the role of transaction cost engineers and develop additional business models to mitigate those anticommons effects that do arise.[43]

4. Targeted Solutions to Specific Problems

Although the flexibility-based solutions offered by patent critics are imprudent, some of the underlying concerns they raise are important to address. It makes sense to make it easier for the system to deal with patents likely to be invalid on the basis of prior art, as long as the decision making process is fair. A fair and predictable process is good for all businesses, big and small. Courts can be helpful here as long as they are constrained by the facts.

The patents that most folks see as bad (and that therefore drive calls for reform) are pernicious because they allow patentees to threaten expensive but merit-less litigation against competitors.[44] Under the present system, an issued patent is presumed valid, which makes the litigant challenging validity have to prove invalidity by a higher standard of proof than usually prevails in civil cases – the increased burden is called the 'clear and convincing evidence' standard, which is in contrast to the more common 'preponderance of the evidence' standard.[45]

The costs under the present system of knocking out even an obvious patent can be very large. The threat of such expensive litigation over even such a questionable patent is precisely what is said to terrorize potential defendants, large and small, about the present patent system. But this *in terrorem* problem can be greatly mitigated through more targeted measures than injecting discretion of the type discussed earlier.

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[42] CAULFIELD ET AL., Evidence and Anecdotes: An Analysis of Human Gene Patenting Controversies, 24 Nature Biotech. 1091 (2006) (reviewing data).

[43] *See, e.g.*, KIEFF/PAREDES, Engineering a Deal: Toward a Private Ordering Solution to the Anticommons Problem, 48 B.C. L. Rev. 111 (2006).

[44] Importantly, the supposed fact that the U.S. patent system is afflicted with a disproportionate number of 'bad' patents is a topic of serious debate. *See*, *e.g.*, KATZ/NELSON, Bad Science in Search of Bad Patents, 17 Fed. Cir. Bar. J. 1 (2007) (showing serious flaws in popular methods used to conclude that the USPTO issues 'bad' patents).

[45] *See* 35 U.S.C. § 282; *Rockwell Int'l. Corp. v. United States*, 147 F.3d 1358, 1364 (Fed.Cir.1998) (the one challenging invalidity must prove it by 'clear and convincing evidence', which is a tougher standard to meet than the ordinary standard used in civil litigation, a mere preponderance of the evidence).

Dialing down the present presumption of validity to something like the ordinary standard for civil cases would decrease the bad, *in terrorem*, effect and would allow alleged infringers to collect attorney fees from a patentee who brings an infringement case having been warned, for example, about particular prior art that would cause a court to hold the patent invalid. This practice of fee shifting in cases of a patentee's baseless arguments in defense of the patent's validity would match the present rules that allow patentees to get fees from infringers who should have known about infringement but failed to avoid it while mounting baseless arguments in defense of the patent infringement.[46] Such symmetry in fee shifting would encourage parties to exchange information and resolve disputes before getting deeply into expensive litigation. The goal of this proposed reform is to directly address the complaints of patent critics without injecting the degree of unpredictability and political manipulability into the system that would be caused by their calls for flexibility and discretion.

When litigation is needed, the Federal Rules for Civil Procedure have been carefully developed over many years to give the fairest process we have to offer. They provide careful rules governing the procedures for joinder; compulsory counterclaims; issue preclusion, also called collateral estoppel; and claim preclusion, also called res judicata, which are collectively designed to avoid abusive and repetitive process, as well as rules for procedures such as summary judgment, which are designed to avoid long trials in which there is no genuine issue of material fact.[47]

5. Help Disputes Get Resolved

While it's hard to avoid disputes it's not hard to encourage them to resolve themselves early. Certainty and predictability help achieve this goal.

This is why it makes sense for a patent holder to have the right to exclude infringers by getting a court-ordered injunction. Many see last year's Supreme Court *eBay* decision[48] as having raised the bar for patentees seeking an injunction after there has been a full adjudication of patent validity and infringement by injecting more discretion in the determination of essentially whether an injunction is in the broadly defined public interest. Others see the case as merely restating the established practice that an injunction should issue once validity and infringement have been decided in court.

Maintaining the credible threat of an injunction behind those patents that are valid and infringed is important for getting deals done. Negotiating against the backdrop of an injunction may seem like having a gun to one's head, especially when the patentee is not practicing the invention. But just imagine a rule that

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[46] *See* 35 U.S.C. § 285 (allowing the court 'in exceptional cases', to 'award reasonable attorney fees to the prevailing party'). *See also*, 35 U.S.C. § 284 (allowing court to 'increase the damages up to three times the amount found or accessed').

[47] *See* Fed.R.Civ.P. 19 (joinder); *Blonder-Tongue Laboratories, Inc. v. University of Ill. Foundation*, 402 U.S. 313 (1971) (discussing res judicata and collateral estoppel); Fed.R.Civ.P. 56 (summary judgment).

[48] *eBay Inc. v. MercExchange, LLC*, 126 S.Ct. 1837 (2006).

allowed me, anytime I notice you are not using your car in the way I might like to use it myself, and pay whatever a court might later request, if you sue me and win. Even when a patentee is not looking for a deal, the infringer can still offer him one too attractive to pass up. This presumably motivated the court to reject exceptions based on a patentee's 'willingness to license' or 'lack of commercial activity' and to affirm the century-old *Continental Bag* decision that a patentee need not practice the patented invention.[49]

A rule that allows a court to step in anytime the parties can't strike a deal gives the one who has been adjudicated to have infringed a valid patent the incentive to not strike a deal with the patentee and to instead seek a more favorable royalty rate from the court. After all, only if the judge picks a price that is too high does the adjudicated infringer then have the incentive, at his option, to engage the patentee in more amiable negotiations. The incentive to settle is even less at earlier phases of the case, when there is increased uncertainty of enforcement as well as validity, especially when both are determined using flexible tests. And the incentive to settle at any time is less if the infringer can perpetually re-negotiate in any deal involving multiple important terms beyond a basic patent license. This year's Supreme Court decision in *Medimmune*[50] may be problematic in this connection if it allows any infringer who has struck such a deal to hold the patentee to all those other terms while at the same time whittling away at price in the name of a challenge to the validity of the patents that had been licensed.

Predictability is a real option in the context of validity determinations, where the facts of the prior art are more certain than the flexibility of government discretion. These facts also are readily available to both the patentee and the alleged infringer, who are each free to go find them at the time the party determines the effort is worth the cost of making such an investigation.

Imagine a patent system in which both patentees and potential infringers had good access to fee shifting when the other side's case is baseless. Under today's rules, the patentee wants to educate the alleged infringer about the strength of the infringement case relatively early in the process because this increases the patentee's chance of getting enhanced damages such as attorney fees. For the same reason, the alleged infringer has a strong incentive to avoid notice by avoiding communication. Under the rule proposed here, the alleged infringer would similarly want to educate the patentee about any validity-destroying prior art. Symmetry in fee shifting helps align both parties' incentives to communicate with each other.

Under such a system, the existing markets for audit-type opinions of counsel would grow. Under today's rules, the alleged infringer is the one who often wants to get an opinion of counsel early in the process so as to later bolster arguments that it had a good faith basis for believing it did not infringe valid patent rights, thereby decreasing the chance it will have to pay enhanced damages or attorney fees if it

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[49] *Continental Paper Bag Co. v. Eastern Paper Bag Co*., 210 U.S. 405 (1908).

[50] *MedImmune, Inc. v. Genentech, Inc.,* 127 S.Ct. 764 (2007) (holding that licensee was not required to terminate or breach license agreement prior to seeking declaratory judgment of patent invalidity).

looses the case. Under the rule proposed here, the patentee would also want to get an opinion of counsel early in the process so as to later bolster arguments that it had a good faith basis for believing there was infringement of valid patent rights, to try to avoid having to pay the alleged infringer's attorney fees.

As the need for opinions increases, the costs borne by each individual player will decrease. Under today's practice, each party interested in assessing the validity of a patent typically has to hire its own individual opinion counsel, which is expensive. Under the proposed practice, it will become easier for third parties to effectively spread these costs across multiple customers by starting businesses to provide rating services akin to those seen in today's capital markets to evaluate a particular company's stock or bond offerings.

The approach proposed here also will decrease slightly the average value of all patents because patentees will now have to fight harder on the issue of validity when they assert their patents in court. But this is not necessarily bad. The costs of arguing to the Patent Office to get patent rights in the first instance will be less than in a system under which the Examiner can reject applications on the basis of their own discretionary views.

Most importantly the approach proposed here directly addresses the fears of those who are held hostage under the current system by the threat of litigation costs surrounding patents that are merely presumed to be valid. Under a decreased presumption of validity, such terrorizing effect is largely evaporated.

The system makes sense at a macro level as well. Because most patents don't matter, society is acting rationally when it elects not to conduct a thorough examination of every patent application up front in the Patent Office.[51] Even for those patents that do matter, the information about the prior art that is needed to assess their validity is more accessible to private parties than it is to the Patent Office; and those parties are better positioned to decide when it is worth it to go get that information and analyze it.

In the end, a decrease in the presumption of validity would be particularly good for the 'Davids' of the system. It directly protects them from the *in terrorem* effect of junk patents: The threat of expensive but baseless litigation to defend against patents having validity that is only a matter of the present presumption. It also indirectly helps them raise funds needed to litigate against a baseless opponent regardless of whether they are asserting patent infringement or invalidity. The ability to get attorney fees in baseless cases opens up the market for contingent and other flexible fee arrangements for those too liquidity constrained to fight on their own.

Like any proposal, the call for a decrease in the presumption of validity is likely to face a number of objections. Some are likely to be easier to overcome than others.

One conceptual objection likely to be raised at the outset is that the presumption of validity plays a central role in maintaining the predictability of the patent system for those who invest in and around patents, and that absent this presumption, patents

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[51] KIEFF, Property Rights and Property Rules for Commercializing Inventions, 85 Minn. L. Rev. 697, 713, note 76; LEMLEY, Rational Ignorance at the Patent Office, 95 Nw. U. L. Rev. 1495 (2001).

will not be worth much more than the paper on which they are printed. But theoretical fears about such paper patents don't measure up against actual experience.

The largest capital market in the history of the human experience is centered around such 'paper filings.' The US Securities and Exchange Commission (SEC) could examine each stock offering to determine whether it were better than alternatives, *etc*. Instead, the SEC largely operates a registration system focusing on the adequacy of disclosure contained in each prospectus and registration statement, endeavoring to ensure their clarity and truthfulness, but not passing on the substance of whether they make for a good or bad investment.[52]

On a more practical level, it also is likely to be argued that increasing reliance on opinions of counsel will make it harder for lawyers to give advice. The crux of this argument is the old tension underlying the attorney-client privilege. On the one hand it often is important for a decision maker to verify whether a party actually acted with good advice of counsel. Yet on the other hand it will be hard for a lawyer and client to openly discuss the strengths and weaknesses of various approaches if they know that all of their communications are likely to be subject to open review later in court.

But this is to some extent a false dichotomy. One lesson our society learned from corporate scandals such as the one involving Enron is that it can be very important to decouple auditing from advising. An opinion of counsel about a patent can be an important auditing tool that should be kept separate from the important advising a client must have throughout the process of conducting its affairs in the competitive market and in litigation. The Federal Circuit should be mindful of the benefits of maintaining these distinctions as it works to clarify the law relating to attorney client privilege for patent opinions of counsel in the wake of its recent foundational *en banc* decision on attorney-client privilege for opinions of counsel in *Knorr*.[53]

Others may argue that heavy reliance on opinions of counsel will just lead every business file to be decorated with a favorable opinion. The fear is that any good attorney can write an argument to support every side of every case, especially if the law makes the possession of such a document a tool for decreasing the damages her client may have to pay in court.

But this argument also ignores the reality of practice in patent cases. Our federal courts have shown little hesitance to not only sniff out bogus opinions of counsel but to be very firm in specifically calling out their authoring attorneys and law firms. In *CellPro*,[54] the defendant company's legal advisor, who was a member of the company's board of directors, was not only an experienced patent lawyer and former Patent Office Examiner, but also had previously been a partner in the law firm with the lawyer who authored the opinion that was found to be insufficient to insulate the defendant from a finding of willfulness. The district court issued a long

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[52] *See* LOSS/SELIGMAN/PAREDES, Securities Regulation (4th ed.) (11 volume treatise).

[53] *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GMBH, v. Dana Corp.*, 383 F.3d 1337 (Fed. Cir. 2004) (en banc).

[54] *Johns Hopkins Univ. v. CellPro, Inc.,* 978 F.Supp. 184 (D.Del.1997), *aff'd* 152 F.3d 1342 (Fed.Cir.1998).

and critical opinion that extensively discussed both lawyers by name as well as the name of the law firm, and held that the opinion of counsel was 'so obviously deficient, one might expect a juror to conclude that the only value they had to CellPro in the world outside the courtroom would have been to file them in a drawer until they could be used in a cynical effort to try and confuse or mislead what CellPro, its Board, and counsel must have expected would be an unsophisticated jury.'[55] The Federal Circuit affirmed on this issue, with a somewhat shorter opinion that also critically discussed both lawyers by name as well as the name of the law firm, which no longer is in business.[56]

Even the Federal Circuit, which many see as being too biased in favor of patents and patentees, has been aggressive in policing baseless litigation by patentees. Although it is typically within the discretion of a trial court to grant or deny sanctions,[57] the Federal Circuit in *Judin*[58] held that the trial court had abused this discretion by determining the pre-filing inquiry that was made by Judin and his attorney to have been reasonable. As noted by the Federal Circuit, prior to filing the complaint, Judin and his attorney had observed an accused device from a distance while it was in use at a post office, but neither Judin nor his attorney had attempted to obtain a device from the Postal Service or the manufacturer so that they could more closely observe the device, nor did they make any attempt to dissect or 'reverse engineer' a sample device.[59] Judin's attorney merely 'reviewed one of the patent claims' and stated that he 'saw no problem with it.'[60] Bottomline: the Federal Circuit found that it was actionable misconduct for Judin and his attorney to have conducted virtually no investigation in order to determine whether Judin's claims had any foundation. Indeed, *Judin* itself shows that by putting one's opponent on proper notice of the weaknesses in the opponent's case can allow prudent counsel to protect themselves from frivolous litigation under even the existing system using procedural rules designed to curtail bad behavior in litigation in all civil cases.

6. Prudence Versus Political Expediency

While the politically expedient approach may be to listen to the calls by so many large players in support of the flexibility they propose, the decreased presumption of validity proposed here is a more prudent approach. In an exercise of prudent self restraint, Ulysses is said to have lashed himself to the mast so he would not be tempted by the siren songs to steer his boat toward their voices and become wrecked on their neighboring shoals. Today, some large established players offer seductive songs backed up by large lobbying budgets and large constituency bases of employees concentrated in particular political districts, to advance those compa-

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[55] *Id.*, 978 F.Supp. at 193.
[56] *Id.*, 152 F.3d at 1364.
[57] *See* Fed. R. Civ.P. 11.
[58] *Judin v. U.S. Hewlett-Packard Company*, 110 F.3d 780 (Fed.Cir.1997).
[59] *Id.* at 784.
[60] *Id.*

nies' short term interest in seeing a patent system full of flexibility, which would primarily favor them. The prudent course for the country is to embrace a strong patent system based on predictability and facts to help all players, large and small, and along the way promote American innovation, competition, economic growth, and jobs.

The Need for Climate Improvement in Intellectual Property Law

Marianne Levin

Today's interconnected world is a turbulent kaleidoscope of complex and dynamic changes. The forces of globalization, geopolitical developments, societal demands and heightened expectations are but a few examples of the multiple pressures bearing down on the intellectual property rights (IPR) system.[1] As a result of modern technological development, issues of IPR have also come to be of more direct concern to users, enjoining closer attention to third-party interests. Protection can no longer be viewed solely in its original and at one time naturally given right-holder perspective,[2] the perspective informing the creation of the Paris Convention for the Protection of Industrial Property Rights in 1883 and the Berne Convention for the Protection of Literary and Artistic Works in 1886.

As can be seen from *Joseph Straus's* list of publications for the past three years,[3] IPR nowadays are often concerned with multiple interests, delicate balances and the transcendence of boundaries with other fields and interests – labor law, biotechnology, digital technology, economics, ethics, trade relations, collective or individual ownership, competitive conditions, medicine, the environment, international development and world politics – or else with wide-ranging approaches to discussing the appropriate structure of the traditional system of exclusive rights. Although problems of this kind attract and engage the younger generation and make teaching and research in this many-faceted field so rewarding, it is to be regretted that research no longer forms the basis of IPR legislation to any great extent,[4] as has become espe-

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1 *Cf.* EUR. PATENT OFFICE (EPO), Scenarios for the Future 2 (2007).

2 The in-built, countervailing element of competition is being more and more often called into question, *cf.* Court of First Instance, September 17, 2007, Case T-201/04 – *Microsoft* and the investigation which the European Commission is now opening about Qualcomm; *cf.* also European Court of Justice (ECJ), April 6, 1995, Cases C-241/91 P and 242/91 P,– *Magill,*[1995] ECR I-743, and ECJ, April 29, 2004, Case C-418/01– *IMS Health*, [2004] ECR I-5039.

3 Available at: <www.ip.mpg.de/ww/de/pub/organisation/institutsleitung/direktoren/prof__dr__dres__h_c__joseph_st.cfm> (as of April, 2008).

4 Intellectual property law research and research findings formerly played a prominent role, for example, in AIPPI (International Association for the Protection of Intellectual Property), which in turn played an important part in the work of international legislation in the World Intellectual Property Organization (WIPO), and professors served with the German delegation at WIPO. Academics are, however, occasionally enlisted to clarify the legal position, as witness STRAUS, Optionen bei der Umsetzung der Richtlinie EG 98/44 über den rechtlichen Schutz biotechnologischer Erfindungen, Swiss. Fed. Inst. of Intellectual Prop., Pub. No. 2 (2004), and academic initiatives can lead to national legislation such as Germany's 'Gesetz zur Stärkung der vertraglichen Stellung von Urhebern und ausübenden Künstlern' March 22, 2002 (BGBl. I 1155), which evolved from a preliminary draft in 2000 by Professors Dietz, Loewenheim, Nordemann and Schricker together with Justice Vogel of the EPO Opposition Division, *cf.* 2000 Gewerbli-

cially noticeable with and following the creation of the World Trade Organization (WTO) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1995.

Clearly, this has nothing to do with the quality of research or with the steadily growing volume of research in this field,[5] but rather with the often polarised discussions which stand in the way of suitable development and balanced solutions at national, regional and global levels. There are many pressures impacting the system – political, economic, societal, environmental, technological and historical – over which the guardians and stakeholders of the IPR system have little or no control.[6] The trade-related dimension appears to have spurred on an ever-greater number of demarches and manoeuvres for political power. It is also clear that the longer this politicization is allowed to continue, the less the values which IPR were designed to safeguard will be respected and the less adequately IPR will be able to serve its purposes,[7] whether those are of reward, inspiration or growth stimulation.

Attention will now be drawn to some of the development traits which seem to have substantially impaired the climate for IPR, and finally a suggestion will be presented as to how the ongoing deterioration of that climate could possibly be remedied.

1. From a Specialist Field to an Economic Growth Factor

A hundred years ago the Paris Convention had only 17 contracting states as against over 170 today, the Berne Convention 15 compared with today's over 160. This, then, was a relatively uncomplicated, homogeneous world, and apart from the obligations entailed by the conventions, the law was not all that greatly affected by the world outside the IPR community. It was, even if not freed of political considerations, one might say, 'technocratic'.[8] TRIPS, although an amplification of the basic principles underlying the Paris and Berne Conventions, is at the same time part of a wider entity together with the other trade-related agreements of the Uruguay Round in 15 fields.[9] It derives its special importance from the possibility of lack of success in one trade-related field having repercussions on another.[10] The strains involved in

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cher Rechtsschutz und Urheberrecht (GRUR) 765; *see* also NORDEMANN, Das neue Urhebervertragsrecht. Ein Grundriss (2002) and SCHRICKER, Zum neuen deutschen Urhebervertragsrecht, 2002 Gewerblicher Rechtsschutz und Urheberrecht, Internationaler Teil (GRUR Int.) 797 and HILTY/PEUKERT, Das neue deutsche Urhebervertragsrecht im internationalen Kontext, 2002 GRUR Int. 643.

5 An Internet search by 'intellectual property, research' produces something like 7,620,000 hits!

6 *Cf.* EPO, *supra* note 1, at 9.

7 Symptomatically, when the President of the EPO was invited to address World Economic Forum in 2006, it was on the subject of: A World without Intellectual Property, EPO, *supra* note 1, at 3.

8 *Cf.* also GURRY, cited in EPO, *supra* note 1, at 53.

9 *Cf.* the Agreement Establishing the WTO, where TRIPS is Annex 1C as part of the package, which as a total has to be adhered to by Members.

10 *See* Part IV of TRIPS concerning panel procedures, which can recommend trade sanctions under the General Agreement on Tariffs and Trade (GATT).

coping with a growing number of countries, all of them wishing to have a say in things, became, it is true, increasingly apparent in the WIPO from the mid-20th century onwards, but with the TRIPS the nature as such of international IPR policy was changed and made into 'something of a political football – and its administration a negotiating chip in a wider geopolitical context'.[11]

Changes over time can be seen as something natural and generic, especially where centuries are concerned, but present-day IPRs are also quite different from the system with which I became acquainted as recently as the early 1980s, when I first met *Joseph* in the Siebertstrasse attic corridor. The market structures of the information society, which among other things are characterized by a powerful awareness of the value and importance of IPR, are – for good or ill – shifting IPRs in the direction of an investment safeguard. Economic growth and efficiency are the cardinal objectives of the new world order. It is in the nature of such development that IPRs should tend more and more to become an economic and strategic instrument in the hands of powerful agents.[12] The importance of intellectual assets in corporate net worth has increased dramatically, almost doubling in a few decades from 40 to 75 percent or more.[13] Individual trademarks are valued at billions of dollars.[14] A recently published economic study describes the value of IPRs as 'the single most important element for… future growth and development, the ideas and innovations of American citizens and companies.'[15] This being so, the original purposes and balance of the system, including demands on the (culture-bearing) qualifications of the object, are liable to be thrust into the background.[16]

The palpable awareness of the actual economic importance of IPRs, which to no small extent constitute commercial commodities as such, helps to explain the tendency for right-holders to build large IPR portfolios, perceived to have a value as such.[17] It has also prompted the European legislator not only to take vigorous action

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[11] EPO, *supra* note 1, at 53.

[12] *Cf.* Editorial, 'The world's view of multinationals', THE ECONOMIST, Jan. 27, 2000.

[13] *See* American Competitiveness, Remarks by David A. SAMPSON, Deputy Commerce Secretary at University of Evansville, October 5, 2006 (Patents are said to have risen in value from 35 to 85 per cent in 25 years); available at <www.commerce.gov/NewsRoom/DeputySecretarySpeeches/DEV01_005158> (as of Feb. 1, 2008).

[14] *E.g.* Coca Cola $ 67,5 M, Microsoft $ 57 M and IBM $ 56 M (Business Week 2006).

[15] SHAPIRO/HASSET, The Value of Intellectual Property (2005), available at <www.usaforinnovation.org/news/ip_master.pdf> (no longer available online).

[16] *Cf.* the official website of the Chinese Government in April 2005 containing the following description: 'The intellectual property system is a basic legal system that promotes mankind's economic development, social progress, scientific and technological innovation, and cultural prosperity. As science and technology is developing rapidly worldwide and the pace of economic globalization is accelerating, the status of the intellectual property system in economic and social life has reached a historical high…'

[17] *Cf.* EPO, *supra* note 1, at 37. The practical benefit to IBM of its more than 20,000 patents is open to question. But there was probably no great sacrifice involved when, in 2007, about 500 of them were released for open access.

to sharpen the system of sanctions for IP infringements,[18] but also tried to ensure a more realistic computation of damages for infringement.[19]

Lobbying is intensive and tends to make itself heard when the resources are heavy and the legal protection is hard to understand fully but is perceived as being of political importance. Factors of this kind can distort trade conditions in fields where it is doubtful whether increased protection will at all benefit social development in general or whether the increased range of protection really generates greater revenues,[20] at least for those most entitled to it (the original creators).

2. From 'Immaterialgüterrecht' to IP

When talking to journalists and other members of the general public, it is often hard to make oneself understood when speaking of 'Immaterialgüterrecht' (or in Swedish 'immaterialrätt'), terms that from time to time have been considered non-starters from a communication point of view. Many more people today know and understand that IP has to do with 'intellectual property'. Since the USA in recent decades has been the nation dominating the world of IPR, like so much else of economic importance,[21] for want of other easily grasped terms IP has acquired ever-greater worldwide currency. This is particularly reinforced when economists, who usually employ English as their research and reference language, address problems of IPR.[22]

Yet in a national (German or Swedish) perspective one can have doubts concerning the IP concept, because then one will also have partly altered the fundamental concept of the exclusive right, which is notional, incorporeal and purely intellectual, and typifies the way in which intellectual property law has been constructed in the Nordic-Germanic sphere.[23] The fundamental idea was avoidance of the more absolute ownership which becomes a logical necessity when using 'property' – no tres-

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[18] Directive 2004/48/EC of the European Parliament and of the Council of April 29, 2004 on the enforcement of intellectual property rights (Enforcement Directive) and *cf.* the proposed directive on criminal measures aimed at ensuring the enforcement of such rights (2006/0168/COD) (IPRED 2), and *cf.* HILTY/KUR/PEUKERT, Statement of the Max Planck Institute for Intellectual Property, Competition and Tax Law on the proposal for a directive of the European Parliament and of the Council on criminal measures aimed at ensuring the enforcement of intellectual property rights, 37 IIC 970 (2006).

[19] *See* Enforcement Directive, *supra* note 18, Art. 13.

[20] *Cf.* Press Conference with Neelie Kroes, Competition Commissioner, in Brussels, (Jan. 16, 2008): 'Patent protection has never been stronger, but the number of new pharmaceuticals coming to market is declining.'

[21] *See* also among the 100 orders left by the U.S. government in Iraq Order No. 81, Patent, Industrial Design, Undisclosed Information, Integrated Circuits and Plant Variety, Law of April 26, 2004.

[22] *E.g.* the report of the Swedish Government Commission on the review of the economic aspects of patenting for company growth (SOU 2006:80 'Patent och innovationer för tillväxt och välfärd') headed by Professor Ove Granstrand, which speaks of 'patent and IP issues.'

[23] The concept was launched by Professor Josef Kohler in 1907 as a further development of Professor Rudolf Klostermann's discussions concerning the right to intellectual creativity ('geistiges Eigentum'), with partly economic connotations, during the second half of the 19th century.

passing[24] – and which can be particularly unfortunate today, when common sense and flexibility are needed in order to command respect but also to avoid death by suffocation.

3. From Poetry and Steam Engines to Databases and Stem cells

It has been a long time since the legal concepts of works 'of art or literature' or inventions 'susceptible of industrial application' agreed exactly with the meaning in the community at large. But in 1962, for example, when *Joseph Straus* had just completed his law studies, who could have imagined over a billion people sitting at their computers and, by a few strokes of the keyboard, not only watching, listening or reading but also copying, cutting and pasting, animating and creating, sending and releasing works? Or a record company issuing songs by Ray Charles, accompanied by Count Basie, despite the two never having performed together? And who in 1968, when *Joseph* had just completed his doctorate, could have imagined the possibility of genetically modified mice, or human parts outside the body, being copied, multiplied, developed or altered – and patented?[25] This applies regardless of the first steps towards modern biotechnology having been taken.[26] It must have seemed equally unlikely that computer programs would come to be regarded both as literary works in the copyright sense and eligible for patenting as computer-implemented inventions.[27]

It goes without saying that the restrictions on protectable subject-matter in an analogue or mechanical world are unsuited to, or not readily adaptable to, a digital or biotechnical sphere,[28] and many received notions are stood on their heads. New phenomena have come into being which have ostensibly the same characteristics or at all events resemble things already protected. IPRs, it is true, have a tradition of also taking care of new phenomena which the business community considers in need of protection – they are something of a chameleon, readily changing color and shape to fit in with the environment. But the new phenomena tend to burst the carefully considered boundaries inherited from a different era.

Among other factors entailing both benefits and problems, so much more today is probably considered deserving of IPR protection, or lays claim to it, than was the

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[24] *Cf.* HEMMUNGS WIRTÉN, No Trespassing – Authorship, Intellectual Property Rights, and the Boundaries of Globalization (2004).

[25] *See* EP No. 0,169,672 (issued Jan. 1, 1985), the so-called 'Harvard OncoMouse' the scope of which was a last modified in 2004, after 17 oppositions.

[26] In 1958, for instance, Joshua Lederberg was awarded half the Nobel Prize in Physiology/Medicine for his research into genetic structure and function in micro organisms and in 1962 the same prize was jointly awarded to Francis Crick, James D. Watson and Maurice Wilkins.

[27] In view of the pamphlet-like discussion accompanying the negotiations on the protection of computer-related inventions, *cf.* 2002/0047/COD within the EU, perhaps – with the wisdom of hindsight – one would after all have advocated a *sui generis* solution for this kind of technology; *cf.* WIPO's first *sui generis* software law proposal of 1965, followed by WIPO's work on the issue between 1974 and 1985.

[28] Which is not contradicted by classical biotechnology tracing its roots back to the field of engineering sciences.

case a few decades ago. At the same time the characteristics have become multidimensional and include a growing number of unconventional trademark features such as color, shape, scent and sound, all claiming protection.[29] Successive global harmonization is leading to co-ordination of (lower) thresholds for protection just as digitization is making it hard to perceive the different objects of protection as essentially different, since they are all made up of ones and zeros. The traditional head start for whoever was first in the field is shortened to hours, days or at most weeks.[30]

The benefits, at all events in the eyes of those believing in IPR as a locomotive of social progress[31] – that which, in the second half of the century, was mainly considered to justify its existence – should thus be taken to include the impetus given to development by the increased competition between the (many) right-holders. Its inclusion of the licensing and purchase of rights to create a wider sphere of protection for one's own operation, on the other hand, may be a dubious proposition in a strict perspective of IPR, for not being conducive to greater creativity nor even to added investments in creativity, though it is possibly justifiable in terms of economic efficiency.[32]

At the same time, the modern view of artistry or inventive step coupled with the principle of legality is bringing more and more under one roof. Old demarcations are losing their meaning and no one can size up the new phenomena all that well – are they new and innovative, or known, remixed and re-created?[33] Lower thresholds and new objects of protection are creating more and more overlapping spheres of protection, tending to render definitions and limitations of IPR diffuse. The ordinary conversation in a television studio in conjunction with the Football World Cup not only becomes a subject of the program company's transmission rights but is also considered to carry copyrights for which remuneration is payable when communi-

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[29] *See* ECJ, May 6, 2003, Case C-104/01– *Libertel*, [2003] ECR I-3793; but *cf.* ECJ, September 20, 2007, Cases C-371/06 – *Benetton*, ECJ, December 12, 2002, C-273/00– *Sieckmann*, [2002] ECR I-11737, ECJ, November 27, 2003, C-283/01– *Shield Mark*, [2003] ECR I-14313 and also SmithKline Beecham PLC's application for trademark protection of a hologram, which was denied by the Swedish Court of Patent Appeals, December 28, 2007, Case 04-313 referring to the *Sieckmann* ruling.

[30] *Cf.* MACHLUP, Knowledge and Knowledge Production, Vol. I – Knowledge, Its Creation, Distribution, and Economic Significance (1980) and *cf.* ID, The Optimum Lag of Imitation Behind Innovation, in Festskrift til Frederik Zeuthen, 239 (1958).

[31] By tradition, copyright also includes a notion, express or implied, of cultural acknowledgement and of copyright itself as part of the protection of the cultural heritage. This, as Karnell has observed, means that copyright can be seen as a 'burdensome incubus' in the balancing act which ensues between current market interests and authors' individual claims to exclusive rights; *see* KARNELL, Den odrägliga upphovsrätten (Unbearable copyright), 1997 NIR 370, 376.

[32] *See* MERGES, The Uninvited Guest: Patents on Wall Street, 88 Fed. Res. Bank Atlanta Econ. Rev., No. 4, 1 (2003) and *cf. e.g.* LANDES/POSNER, Indefinitely Renewable Copyright, Univ. Chicago L. & Econ., Olin Working Paper No. 154 (Aug. 1, 2002).

[33] According to LAROCHELLE, Postmodern utopia is that of anonymity. It surrenders the act of writing to common ownership, in: BURANEN/ROY (ed.), Perspectives on Plagiarism and Intellectual Property in a Postmodern World, 121, 128 (1999).

cated to the public in sports bars.[34] With such conditions for protection, IPRs in practice impinge on the very flow of information in a digitized environment.[35]

4. From National to Regional

Whereas 50 years ago we could content ourselves with addressing the development of the proximate world and kindred spirits, today IPRs, in common with most other things, are informed by our dependence on a wider surrounding world. In the first place, legislative initiatives and case law in the European part of the world have, in principle ever since the signing of the Treaty of Rome in 1957 and in earnest since the end of the 1980s, been strongly influenced by the swelling tide of EC directives and regulations which have gradually resulted in the advent of what might be termed a Community IPR.[36]

Legislative zeal at European level has now abated, as there is also the matter of getting everyone on board. The Member States have been truly sluggish in their implementation of the reforms of the past few years, due partly to counter-reactions at national level, e.g. concerning the InfoSoc and the Biotech Directives[37], which have been controversial in many countries. Nor has the Enforcement Directive, which requires the introduction of a far-reaching duty of information,[38] proved unobjectionable in its transposition by the Member States,[39] and consumer behavior has

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[34] *E.g.* Stockholms District Court (interlocutory decision of June 14, 2006 in Case T 13080/06), ruling that there were compelling reasons to indicate that television broadcasts of World Cup football matches contain matter which, as regards both the compilation of image and sound and the studio setting etc., is the result of creative efforts of such a kind as to constitute works in the sense of the Copyright Act and that they have been compiled by the television companies in the form of television transmissions, which accordingly are also works.

[35] The growing sense that knowledge and information ought to be free – for the public good, and not appropriated and exploited by the few – is prevalent among those who create much of the genuinely new knowledge in the first place, *see* EPO, *supra* note 1, at 74 and *cf.* REICHMAN/SAMUELSON, Intellectual Property Rights in Data, 50 Vand. L. Rev. 51 (1997).

[36] ECJ case law, not least in the sphere of trademarks, has shown old concepts taking on new meanings in a European environment, as in *e.g.* ECJ, October 23, 2003, Case C-408/01 – *Adidas-Salomon*, [2003] ECR I-12537;,ECJ, November 12, 2002, Case C-206/01– *Arsenal Football Club*, [2002] ECR I-10273; ECJ, September 20, 2007, C-371/06 – *Benetton*; ECJ, May 14, 2002, Case C-2/00 – *Hölterhoff*, [2002] ECR I-4187; ECJ, January 25, 2007, Case C-48/05– *Adam Opel*, [2007] ECR I-1017.

[37] Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of the copyright and related rights in the information society and Directive 98/44/EC of the European Parliament and of the Council of July 6, 1998 on the legal protection of biotechnological inventions, respectively.

[38] *See* Art. 8 and *cf.* Art. 8 of the InfoSoc Directive. The IPRED 2 is likely to run into similar problems, *cf. supra*, note 18.

[39] *Cf.* ECJ, January 29, 2008, Case C-275/06 – *Promusicae*.

hardly been affected at all by sanctions against downloading and illicit private copying.[40]

But the biggest issue still outstanding is the Community patent.[41] There is no doubt whatsoever that a uniform patent law for Europe would play an important role economically, psychologically and legally.[42] This was made abundantly clear, for example, by the European Commission's consultation in the summer of 2006. A Community patent has also been termed a prerequisite for achieving the Lisbon targets of a competitive Europe by 2010.[43] But does the current compromise proposal[44] – based probably on a bid to reconcile the idea of central handling of patent cases with local/regional considerations – really offer the business community a viable option to the European Patent Litigation Agreement?[45]

Apart from the Community patent the important issue is simultaneously being discussed as to how the roles of the EPO and the national patent authorities can be streamlined, how unnecessary duplication can be avoided and how the quality of patent assessment can be elevated.[46] One of the conceivable solutions being mentioned is for national patent authorities to become satellites of the EPO, which would be a positive contribution towards reducing the backlogs in the constantly growing number of patent applications.[47] The drawback is a politically sensitive risk of watering down the broad technical competence of the individual country, since the satellite model would probably lead to specialization in each country's area of strength.

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[40] For this reason, at long last, the time has been found ripe for simplifying consumer access to online music, films and games, *cf.* IP/08/5 of January 3, 2008 and the Commission's public consultation 'Creative Content Online in Europe's Single Market'. *Cf.* Commission Recommendation of October 18, 2005 on collective cross-border management of copyright and related rights for legitimate online music services (2005/737/EC) OJ L 276/54 October 21, 2005. From a Nordic perspective one wonders what will then be the fate of the hitherto so important 'contractual licences'.

[41] *Cf.* COM(2000) 412 Proposal for a Council Regulation on the Community patent and furthermore COM(2003) 827-828 Proposal for a Council Decision conferring jurisdiction on the Court of Justice in disputes relating to the Community patent and Proposal for a Council Decision establishing the Community Patent Court and concerning appeals before the Court of First Instance.

[42] *Cf.* ECJ, July 13, 2006, Case C-4/03 – *GAT*, [2006] ECR I-6509; and ECJ, July 13, 2006, Case C-539/03 – *Roche Nederland*, [2006] ECR I-6535.

[43] *See* the European Parliament Plenary Session October 12, 2006 and Commission document SEC(2006) 1379 of October 26, 2006.

[44] COUNCIL OF THE EUROPEAN UNION, NO. 14492/07 (Oct. 30, 2007), Towards an EU Patent Jurisdiction – Points for discussion, where the separation between claims of invalidity and infringement seems especially unfortunate.

[45] Available at <www.epo.org/topics/issues/eply.html> (as of Feb. 1, 2008).

[46] *Cf.* Administrative Council of the European Patent Organisation (ACoEPO) backs a comprehensive strategy to tackle workload, December 14, 2007, available at: <www.epo.org/about-us/press/releases/archive/2007/20071214_fr.html> (as of Feb. 1, 2008).

[47] Worldwide patent applications are growing at about 4.7 per cent per year (WIPO 2007), and the pace is even faster among Asian economies such as China and South Korea, see the US Government Accountability Office: 'Hiring Efforts Are Not Sufficient to Reduce the Patent Application Backlog' (Sept. 2007). *Cf.* also the ACoEPO on December 14, 2007.

The concluded but more protracted legislative processes include the implementation of the Biotech Directive, which began in 1988 and was adopted ten years later but then took nearly as long again to be implemented at national level. It is questionable, however, how much real harmonization will ultimately follow.[48] In its second report on the subject, the Commission notes among other things that 'purpose-bound protection is provided for inventions concerning material isolated from the human body (France) and human/primate gene sequences (Germany).'[49] If the wording of the directive is complied with to the letter, patent requirements, even without such restriction, are unlikely to lead to anything else in reality, other than in exceptional instances.[50] But patents for genetic sequences as such are now on the whole a thing of the past.[51] Instead the centre of scientific – and ethical – attention is occupied by patents for (embryonic) stem-cell inventions.[52]

The uncertainty which then has arisen has to do with the fact that, over and above the commonly acknowledged and specifically mentioned examples of absolute exceptions from patenting in Art. 6(2) of the Biotech Directive, there is no European consensus view of what is acceptable or moral practice in these connections; indeed, there is not even an global definition of an embryo. The matter has to be judged according to national law, and consequently there are many opinions.[53] A particular problem therefore arises when the patent applications are processed through co-ordinated assessment by the EPO, which is independent of Community law.[54] The ECJ has ruled that national attitudes and values must be

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[48] *Cf.* ECJ, October 9, 2001, Case C-377/98– *Netherlands / Parliament and Council*, [2001] ECR I-7079 No. 37 *et seq.* In case ECJ, June 16, 2005, C-456/03- *Commission / Italy*, [2005] ECR I-5335, however, reference to general patenting concepts was not sufficient in itself.

[49] *See* COM(2005) 312 final p. 4. Other countries too are discussing such a possibility of restriction, *e.g.* Sweden, *cf.* SOU 2006:70 (Oinskränkt produktskydd för patent på genteknikområdet), in which the majority of the Commission's members advocate the retention of unlimited patent protection.

[50] *See* STRAUS, Produktpatente auf DNA-Sequenzen – Eine aktuelle Herausforderung des Patentrechts, 2001 GRUR 1016.

[51] *Cf.* HUGO, Intellectual Property Committee Statement on Patenting of DNA Sequences in Particular Response to the European Biotechnology Directive (Apr. 2000) chaired by Joseph Straus.

[52] On the subject of stem cells SEC(2005) 943, pp. 5 *et seq.*, remarks that '…the Commission considers that it is premature to give further definition or provide for further harmonisation in this area.'

[53] Two main lines are discernible: (1) countries such as Belgium, the UK and Sweden, where therapeutic cloning is accepted but of course is not equated with reproductive cloning, and (2) countries such as Ireland, Norway and Austria, where embryonic stem-cell research is forbidden and also the production of embryonic stem-cell lines. In between, a host of variants are under development. The German approach, not least, is confusing: the German Stem Cell Act passed in July 2002 forbids either importing or deriving new stem cell lines, forcing researchers to work with cell lines derived before January 2002 (BGBl. I S. 2277). It should be noted that in May 2008 the 'Bundesrat' has approved a law on the postponement of this date to May 1, 2007. *Cf. also* Embryo Protection Act of December 13, 1990 (BGBl. I S. 2746).

[54] *Cf.* Rule 28(c) of the European Patent Convention (EPC) Implementing Regulations, which is obviously aimed at harmonising the EPC with Community law, *i.e.* Art. 6(2) of the Biotech Directive.

respected.[55] Even if it will eventually be possible to 'reverse' developed cells to the stem-cell stage, it remains uncertain whether a procedure of 'embryo destruction' can be entirely circumvented.[56] It remains to be seen what line the EPO Enlarged Board of Appeal will take on these issues and whether a patent application can be refused on ethical grounds contrary to the view taken in liberal countries such as Sweden, for example.[57] The logical solution would be for the exceptions not to be construed beyond their wording,[58] as any patent, once granted, can be invalidated nationally on ethical grounds.[59]

5. From WIPO to WTO

On the global stage, the developing countries – Argentina, Brazil and others – have long been trying to increase their political clout. Since the Doha conference of ministers in connection with the WTO meeting there in 2001, and especially since 2004, they have effectively formed themselves into Friends of Development[60] with a proposed 'WIPO Development Agenda'.[61]

This is taking place at the same time as WIPO has lost some of its century-old grip on the development of IPR, owing to the creation of TRIPS on the initiative of

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[55] *Cf.* ECJ, October 9, 2001, Case C-377/98 – *Netherlands / Parliament and Council*, [2001] ECR I-7079 No. 37 *et seq.*; and ECJ, June 16, 2005 C-456/03 – *Commission / Italy*, [2005] ECR I-5335 No. 78.

[56] *Cf.* recent inventions by Professor Shinya Yamanaka *et al.* at Kyoto University, Japan. This kind of reprogramming of adult cells probably cannot be made a fast enough process to cope with acute disorders. Stem-cell banks are going to be needed. It is also uncertain whether reprogrammed cells have exactly the same properties as embryonic ones.

[57] *Cf.* Wisconsin Alumni Research Foundation (WARF) EP No. 0,770,125 (issued Jul. 25, 1996) – application for 'the isolation, culture and proliferation of human embryonic stem (ES) cells, as well as the cell lines produced from it', which the Opposition Division refused on account of 'embryo destruction'; referring among other things to the Edinburgh Patent, European Patent No. 0,695,351 (issued Feb. 2, 1996), which was only accepted after amendment. In Sweden WARF's annexed application was accepted as Swedish Patent No. 0,526,490 (issued Sept. 27, 2005) because there was no question here of repeated use of the embryo; instead the embryo was used at a preliminary stage for creating input material, the cells.

[58] And *cf.* STRAUS, Ethische, rechtliche und wirtschaftliche Probleme des Patent- und Sortenschutzes für die biotechnologische Tierzüchtung und Tierproduktion, 1990 GRUR Int. 913, 918, arguing that it requires only one dissenting Member State for a Europe-wide norm to be deemed non-existent.

[59] *Cf.* Art. 6(1) the Biotech Directive and Art. 138 EPC.

[60] China and India – the big emergent economies – have not expressly taken sides, however, while South Korea supports the group of industrialized nations. *Cf.* the G-77's Paris Consensus, Paris February 2006, in which China took part for the first time. That document expresses concern that the norms and the technical assistance programme of the WIPO over-emphasize the promotion of IPR standards at the expense of development dimensions, and stresses the importance of WIPO's Development Agenda getting underway.

[61] *See* WO/GA/31/11, WO/GA/31/12 and the report by the General Assembly, WO/GA/32/13 pp. 21 *et seq.*, September 2004. By 2007 the Provisional Committee on Proposals Related to a WIPO Development Agenda had succeeded in pruning the many proposals, and on October 3, 2007 WIPO's General Assemblies accepted the first set of recommendations pertaining to the Organization's work, *cf.* WIPO Doc. A/43/13 REV.

the USA.[62] Nothing happened within WIPO, due to dissensions between the North and the South. The persistently conflict-ridden situation has palpably influenced the many years of negotiations for a Substantive Patent Law Treaty, and the commencement of a Patent Agenda in 2001, so promising at the time, now seems very far off.[63] While the patent-strong industrialized nations, after a meeting in Washington in the beginning of 2006 within the so-called Group B+, have chosen to concentrate the negotiations on four main issues (prior art, novelty, inventive step and grace period),[64] the Friends of Development have a much longer list of priorities to be included in harmonization talks, which among other things includes a demand for disclosure of the origin of genetic material in patent applications.[65]

The purpose of TRIPS, then, was to break the negotiating deadlock of unanimous decision-making within WIPO, but also to raise the level of IPR obligations the world over, because this would probably impact favourably on the economy, in which the entertainment and pharmaceutical industries are important American elements. The problem of inaction within WIPO, due to an increasingly polarized stand-off between the North and the South, has also arisen within the WTO, to say the least. The negotiations for a revision of TRIPS have progressed slowly, despite the Agreement itself having a built-in agenda providing for its review. These discussions have continued on an informal basis since the breakdown of the WTO talks on July 23, 2006.[66] Just before that, however, solutions were found to some of the issues which had been on the TRIPS agenda.[67] They include the agreement under Paragraph 6 of the Doha Declaration in 2003 (concerning access to patented pharmaceutical products in public health emergencies),[68] for which the ratification

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[62] At the start of the 1986 Uruguay Round, the USA demanded that IPR be included in the negotiating package.

[63] On this subject, *see* www.wipo.int/patent/agenda/en/> (as of Feb. 1, 2008) and <www.wipo.int/patent/agenda/en/timetable.html> (as of Feb. 1, 2008) which to some extent mirrors the dream of a 'world patent' within the framework of a Patent Cooperation Treaty (PCT).

[64] *See* WO/GA/31/10 ANNEX, Proposal for Establishing a New Work Plan for the SCP by the USA and Japan; further B+/EM/5 Chair's text, November 6, 2006. For discussion at the Fifth Group I / B+ Experts Meeting, Tokyo, Japan on November 20-21, 2006, available at <www.ipjur.com/data/061108Group_B-plus_Chairs_Draft_Nov.pdf> (as of Feb. 1, 2008). The latest B+ meeting took place concurrently with WIPO's General Assemblies, in October 2007.

[65] Other issues are *e.g.* Space for flexibilities, exclusions from and exceptions to patent rights, prior informed consent and benefit-sharing, transfer of technology, and alternative models to promote innovation.

[66] The latest formal WTO-/TRIPS-meeting, in Hong Kong in December 2005, see WT/MIN(05)/DEC, DOHA Work Programme, Ministerial Declaration, adopted on December 18, 2005. The informal meeting of the 149 member' negotiating delegations in November 2006 failed to produce any opening.

[67] Among them Art. 66.1 concerning the delay allowed to the least-developed countries (LDCs) for implementation of the Agreement. Since 2002, however, the delay for pharmaceutical product patents applies until 2016; *see* WTO Council Resolution of June 27, 2002. On November 29, 2005 Members gave the LDCs an extension until July 1, 2013 to provide protection for trademarks, copyright, patents and other intellectual property.

[68] *Cf.* Art. 31(f) TRIPS.

period has been extended to December 31, 2009;[69] although the system's complicated formalities make it hard to determine its long-term effects.[70]

One of the most important issues outstanding, for the time being a subject of informal negotiations, concerns Art. 27.3(b), or the so-called biotech exclusion,[71] to be reviewed four years after the Agreement's entry into force. This includes the possible requirement of patent applicants to disclose the origin of genetic resources. The new Art. 29*bis* proposed by the developing countries implies a duty of this kind, with the sanction of patent invalidation.[72] The EU supports the demand for disclosure but opposes the invalidation of the patent, preferring a different form of sanctions. The USA and Japan, for their part, maintain that 'biopiracy' can be fought with other weapons.[73]

Disclosure of origin in patent applications is not only an important and politically charged issue in the revision of TRIPS and in patent negotiations but has above all been a major topic in the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (ICG-GRTKF).[74] Today, though, everything has merged and the same conflicts keep cropping up over and over again. But while the industrialized countries seem to have seen ICG-GRTKF as a suitable means of keeping up a dialogue on politically or legally difficult questions, the developing countries want the end to be the creation of a binding document. And so, seven years on, the committee's mandate remains an open question.

A closely related issue outstanding in TRIPS is the relation of the agreement of the Convention on Biological Diversity (CBD).[75] Under the CBD, a country owns and controls its genetic resources and foreigners cannot just come and take them without permission; 'informed consent' is required, plus an agreement on fair sharing of the income generated.[76] But questions asked in this connection include whether signatories can genuinely live up to such a requirement as a basis for the

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[69] On December 1, 2007 there were only eleven ratifications.

[70] Nevertheless, on July 19, 2007 Rwanda became the first country to give notification of its intention to import medicine (for HIV/AIDS) manufactured in another country (Canada). *See* submission IP/N/9/RWA/1, at: <www.wto.org>, under 'documents' (as of Feb. 1, 2008).

[71] Plants and animals other than micro organisms can be excluded from patentability, though protection must be given to plant varieties either by patent or through a *sui generis* system, *e.g.* under the UPOV Convention.

[72] The proposal is supported by the African group and by the LDCs.

[73] *See* HJERTMAN, Är immaterialrättssystemet ett hinder för utveckling?, IIC-NYTT 2007:1 at <www.icc.se/omicc/iccnytt/071.pdf> (as of Feb. 1, 2008).

[74] The developing countries, however, have argued that TRIPS is the right place for introducing a stipulation of declarations of origin. *Cf.* proposals by India and other countries, WT/GC/W/564/Rev. 1; TN/C/W/41/Rev.1 p. 2, which has had some support from the EU and Norway but hitherto been rejected by the TRIPS Council.

[75] A provision on disclosure of origin for biotechnological material has been incorporated in the Nordic patent laws (without sanctions), *cf.* recital 27 on the Biotech Directive. *Cf.* also the Swiss proposal in connection with the negotiations on PCT, PCT/R/WG/4/13.

[76] *Cf.* Bonn Guidelines. At a meeting of the CBD countries in March 2006 in Brazil, 2010 was made the deadline for an international agreement on genetic resources.

calculation of benefit sharing as per Art. 15 of CBD,[77] and whether the overarching purpose of conserving the world's biological/genetic resources might not be better served by an obligatory gene- or seedbank.[78]

Geographical indications of origin (GIs) are another field which has attracted a great deal of attention in recent years.[79] Here, however, the divisions of opinion are not between the North and the South but rather between 'old world' and 'new world' countries, above all on the subject of wine and alcohol designations, e.g. whether champagne is a semi-generic name.[80] One measure which comes within the original mandate is the creation of an international register of protected names,[81] but there is much disagreement, above all between the USA, Argentina, Chile and New Zealand, who are willing to accept a voluntary database with no legal effect, and the EU. The EU (which, not only promotes wine names, has since 1992 had a special registration system for GIs for agricultural produce[82]), supported by a number of other countries, argues for an obligatory register which counts as prima facie evidence.[83] The opponents argue among other things that a register would be liable to confer improper 'extra-territorial' enlargement of protection.

6. From Globalization to Fragmentation

One of the palpably new elements in the international discussion of IPRs is that it is no longer taking place in such traditional fora as WIPO, United Nations Educational, Scientific and Cultural Organization (UNESCO)[84] or even the relatively new WTO. The number of interested parties wishing to have a say in these developments has multiplied several times over, and IPR questions are now being raised, in positive and negative terms, with proposals for reform and innovative lawmaking, in a steadily growing number of 'non-IPR' connections. One pivotal organization of this kind is the World Health Organization (WHO), which has initi-

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[77] *See*, *e.g.*, CIPA on this question at <www.cipa.org.uk/pages/GeneticRes> (as of Feb. 1, 2008).

[78] *See* <www.quno.org/geneva/pdf/economic/Occassional/OP17-Smolders.pdf> (as of Feb. 1, 2008). The eighth conference of the CBD is due to take place in 2008.

[79] *See*, *e.g.*, 96 Trademark Rep. No. 4 July-August 2006, with articles by Brauneis, Schechter, Bently, Sherman, and Min-Chiun Wang; *cf.* also AIPPI Q191 (2006).

[80] *Cf.* Art. 22 *et seq.* TRIPS.

[81] *Cf.* Para 18 of the Doha Declaration and Art. 23.4 TRIPS. It is more doubtful whether an enlargement of the area, as proposed *e.g.* by the EU and Switzerland, can be accommodated.

[82] *Cf.* WTO Report of the Panel, WT/DS174/R, March 15, 2005 (USA *et al.* against EU), in which both parties consider themselves the winners. Subsequently, however, on March 20, 2006, the EU issued new Regulations on the subject: Council Regulations (EC) Nos. 509 and 510/2006, of March 20, 2006. Art. 7(k) of Regulation (EC) 40/94 can with some hesitancy be reconciled with the Panel's conclusion on first to file/first in right.

[83] In December 2007 the EU left open the question of which products are to be included in a future register. This has been construed as a possible (political) package solution with disclosures of origin, where the EU has previously adopted a mediatory position between those wanting no obligations in this field and those wanting binding rules.

[84] Administrator of the Universal Copyright Convention.

ated a global reform program for important R&D in the health sector,[85] to be implemented on a fairly tight schedule.[86] Out of 60 activities proposed for the improvement of world health, especially in poor countries through better access to pharmaceuticals and new incentives for research into the diseases of those countries, 20 are directly and exclusively concerned with IPRs. Many of these focus on patents, but designations – non-proprietary names and trademarks – are also affected by the program.[87]

By tradition, UNESCO and the United Nations Conference on Trade and Development (UNCTAD) have also been to some degree concerned with IPR conditions in developing countries,[88] and this has now been intensified with reference to the current issues.[89] Within the UN family the Food and Agriculture Organization (FAO) also has a special IPR task force set up for the creation of a Standard Material Transfer Agreement designed to facilitate transmission of genetic resources and benefit sharing as provided in Art. 8(j) of the CBD. In addition, the FAO is drafting a 'patent landscape' surrounding gene promoters relevant to rice.[90]

It is further worth noting that the Organisation for Economic Co-operation and Development (OECD) has been working since 2001 on guidelines for a research exemption under patent law.[91] At the OECD conference in Madrid in May 2006, alternatives to patents were also discussed, e.g. in the form of combinations of classical patent rights and open-access models, as well as other free arrangements resembling open source and creative commons in the copyright sphere.

Not only do the many stakeholders confuse the traditional landscape with its established concepts and interpretations, but when IPR harmonization issues are intensively discussed exclusively within the Group B+ or the OECD, this can be

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[85] *Cf.* WHO's Resolution of May 27, 2006, which was based on proposals from Brazil and Kenya and the WHO Commission Report 'Innovation and Intellectual Property Rights', April 2006, available at <www.who.int/intellectualproperty> (as of Feb. 1, 2008). The Resolution, although not binding, has been regarded as a milestone in the Organization's activities. The finally adopted 'Resolution on the Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property' by the 61st World Health Assembly on May 24, 2008, however, still faces an uncertain future.

[86] *E.g.* the introduction of 'sensible patenting and licensing policies to maximize the availability of innovations', including 'research tools and platform technologies for the development of products of relevance to public health' in developing countries. National legislation is to encourage the marketing of generics and the use of generic names is not to be restricted.

[87] The question of International Nonproprietary Names (INN) and trademarks has given rise to differences of opinion in the WHO discussions between the biotechnology industry and generics producers and is now being processed by WIPO's Standing Committee on Trademarks, Industrial Designs and Geographical Indications.

[88] *See* <www.iprsonline.org> (as of Feb. 1, 2008) with *i.a.* Resource Book on TRIPS and Development (2005) and with many UNESCO-ICTSD publications (International Centre for Trade and Sustainable Development).

[89] *Cf.* SARNOFF/CORREA, Analysis of Options for Implementing Disclosure of Origin Requirements In Intellectual Property Applications, UNEP/CBD/COP/8/INF/25.

[90] *Cf.* FAO documents IT/GB-1/06/Inf. 15 and IT/GB-1/06/I respectively.

[91] *See* OECD DSTI/DOC(2006)2. 17. III. Law Regarding Research Exemptions in OECD Member Countries; and *cf.* Australian Government, Public Consultation Paper on the ACIP Report 'Patents and Experimental Use', September 2006.

taken as a disturbing sign that IPRs, instead of being globally harmonized, risk becoming purely the concern of the economically powerful countries.[92] The Group B+ aims at presenting a harmonization package solution on vital points to the rest of the world.[93] The Anti-Counterfeiting Trade Agreement (ACTA) is a similar initiative recently advanced by the USA and Japan with the intention of entering into such an agreement with like-minded parties, such as the EU, Canada and Switzerland.[94] The industrialized countries are once more tired of the lack of progress in WIPO and the WTO and have gone their own way through agreements which they hope to get accepted as standards by other countries. This bodes ill for the development of IPR and threatens to further underscore the strong polarization between the North and the South, instead of globalization.

7. From IPR Technocracy to World Politics

An efficient global economy needs good international instruments and strong multinational organizations. The WTO today is regarded as the dominant tool for new rules of this kind, but after little more than ten years, it has the look of an institution in need of reinforcement and modernization.[95] This is partly a consequence of the rapid transformation of the world economy, due to private and commercial interests already having taken over through the Internet and other new technologies, leaving limited scope for international leadership through the WTO, the World Bank or the International Monetary Fund.[96]

The conflicts within TRIPS were initially concentrated on the LDCs' transition period (Art. 66.1) and compulsory licensing (Art. 31(f)). But this turned out to be just the tip of the iceberg which had rolled over the negotiations on global harmonization. WTO membership, which was supposed to open up agrarian and textile markets to the developing countries, has so far not delivered that benefit.[97] Art. 8 TRIPS

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[92] *Cf.* EPO, *supra* note 1, at 48 *et seq. Cf.* also Angela Merkel, German Chancellor and, in 2007, President of the EU and G8, who in a Financial Times, January 3, 2007 interview expressed that the harmonization of, at least, the patent systems of the US and Europe will be an important factor in the development of a transatlantic single market.

[93] This requires, however enshrining the American first-to-invent principle in exchange for other countries introducing a grace period, which seems not so easily achieved, *cf.* PAGENBERG, WIPO Diplomatic Conference in The Hague on Harmonization of Patent Law, 22 IIC 682 (1991).

[94] Even if the G8 and ACTA are separate and distinct, the signing of ACTA may be taken up bilaterally at the G8 Summit meeting in Japan 2008. Fact sheet on ACTA available at: <www.ustr.gov/assets/Document_Library/Reports_Publications/2007/asset_upload_file122_13414.pdf> (as of May 2008). Putting the Globalization Process at Pause, Journal of Commerce, April 24, 2000, <www.newamerica.net> (as of Feb. 1, 2008).

[95] *Cf.* EPO, *supra* note 1, at 48 *et seq.*

[96] *See* MASTEL, Putting the Globalization Process at Pause, Journal of Commerce, April 24, 2000, <www.newamerica.net> (as of Feb. 1, 2008).

[97] Which is not at variance with the fact of these economies having grown, *see* STRAUS, The Impact of the New World Order on Economic Development – The Role of Intellectual Property Rights, 15 Eur. Rev. 47 *et seq.* (2007).

anticipates assistance and technology transfer, but the technology transfer is mainly confined to Free Trade Agreements including TRIPS Plus,[98] whereas the developing countries are already being required to adapt their IPR legislation to a modern standard with no real scope for flexibility.[99] There is little to be seen of the transparency which is supposed to provide mutual inspiration for the development of free and integrated systems of trade and investment.[100]

Underlying the noticeable conflicts between developing and industrialized countries in the TRIPS negotiations, there is above all dissatisfaction with conditions other than those of IPRs in the strict sense. But this is not all. The polarization and politicization of IPRs, partly illustrated here, is also a trial of commercial or innovative strength between industrialized nations, e.g. the EU and the USA, and above all a contest for political and decision-making power in the world, with China destined to join the big players soon. In addition, this field is strongly affected by conflicting political interests at both regional and national levels.

Many users find IPRs to be a threat and an obstacle, which in turn leads to diminishing respect and doubt concerning the equilibrium of the control which right-holders are given by virtue of international agreements and through national and regional legislation.[101] IPRs have not been very easy to balance in the computer technology, digitization and biotechnology revolutions and in practice have come to have a crucial bearing on the actual flow of information in a digitized environment, including technical safeguards.[102]

On top of this, technical progress causes IPRs to clash with many people's ethical values, ranging from the LDCs' view of the right to their genetic resources and their demands for equal treatment according to their circumstances, to the individual person's fear of control over life and death being placed in the hands of a single patent holder. Looking at this manifold and complicated map, it is also clear that what could be termed the technocratic IPR legal order in the first half of the 20th century has now been superseded by a global, polarized, politicized and economized (dis)order.

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[98] Previously, above all in American agreements, and cited as one of the arguments for the need of a WIPO Development Agenda, but in recent years included in EU trade agreements, *see* SANTA CRUZ, Intellectual Property Provisions in European Union Trade Agreements: Implications for Developing Countries, ICTSD Publications No. 18 (2007) and Barton, New Trends in Technology Transfer: Implications for National and International Policy, ICTSD Publications No. 20 (2007). Cf. also UNCTAD Trade and Development Report 2007, available at <www.unctad.org/Templates/WebFlyer.asp?intItemID=4330&lang=1> (as of Feb. 1, 2008).

[99] *Cf.* the Commission on Intellectual Property Rights (established by the UK Government in 2001), available at <www.iprcommission.org> (as of Feb. 1, 2008).

[100] Available at <http://trade-info.cec.eu.int/europa/2001newround/index_en.php> (as of Feb. 1, 2008).

[101] The first 'Pirate Party' (Piratpartiet) was founded in Sweden in 2006 and won 34,918 votes (0.63% of the total cast) in the national elections that year. Its goals are: abolish patents, restrict copyright and ensure privacy. This put the issue of IP on the table for more mainstream parties and has created obstacles to the prompt implementation of the Enforcement Directive in Sweden.

[102] *Cf.* Arts. 7-8 of the InfoSoc Directive.

8. High Time for a World IPR Panel!

I began by deploring the relatively slight and diminishing importance of research in the development of IPRs. It has now also been made clear that the decisions made as an effect of economic motivations and strivings for power have often caused the focus of attention to stray from what ought to be the essence of IPRs – balance – in favour of vested interests and political considerations of another kind. There is a destructive quality about the responsiveness of politicians to relatively short-term vested or national interests.

Many of the problems confronting IPR legislation at global, regional and national levels, including a shortage of public confidence, would probably have been solved in different and better ways if research had had more impact in the form of reflective deliberations, scientifically based standpoints and long-term objectives instead of politicized, posturing arguments and decisions. If, then, the diversity and results of IPR research were to be taken as a proactive starting point, the lodestars of policy-making would be things on which the researchers are mainly in agreement. Consensus researcher opinions could be selected and made the basis of decisions with great responsiveness, while issues on which research has yet to come up with unambiguous answers could be put on ice for the time being, pending further exploration.

The model exists already in the form of the United Nations Climate Change Panel or the Intergovernmental Panel on Climate Change (IPCC).[103] It deserves to be copied. The IPCC has set as a goal the use of scientific literature to evaluate the extent and understanding of climate changes and their effects, as well as the potential to adapt to or counteract anticipated climate changes. Over 1,200 independent scientific authors[104] and 2,500 reviewers have taken part in the preparation of the IPCC's Fourth Assessment Report published in 2007.[105] It is a key point that the work of the IPCC follows normal procedures for scientific publications, in particular the principle of peer review. The authors' task is to collate and evaluate the knowledge that is available in international scientific, technical and socio-economic literature using traditional scientific methods and working principles. Then the reports are sent to specialists for review. In a second round the reviewed reports are sent to government representatives from the member countries of the organizations.

In conclusion, it seems high time for the Max Planck Institute for Intellectual Property, Competition and Tax Law, together with other established research institutes and researchers all over the world, to initiate and engage itself in a World IPR Panel which should jointly be supported by the WIPO and the WTO. This could hopefully contribute to and change the presently bitter and non-progressive IP climate.

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[103] Established in 1988 by the special UN organizations for environment (UNEP) and meteorology (WMO) following the Brundtland Report 'Our Common Future'. The IPCC's secretariat is organised into three working groups and one Task Force.

[104] The scientific authors of the IPCC reports are all selected by reason of their scientific expertise.

[105] Earlier Assessment Reports, published in 1990, 1995 and 2001, each consisting of contributions from the three working groups and a Synthesis Report.

The Patent System – Not More than an Instrument of Public Policy

Slobodan M. Marković

1. Introduction

'Archimedes' law applies to the capability of critical judgment. A man immersed in reality loses his power of critical judgment as much as heavy is the reality he has pressed out.'[1] This witty and lucid thought could often be applied to jurists specializing in patent law who tend to believe that the universe of patent law is established on some sort of higher order purpose which is beyond doubt or questioning. What comes out of that is a sort of patent law positivism and preoccupation with the efficiency of granting procedure and enforcement as the biggest global problems of patent law.

It is common opinion that unlimited growth of the number of patent applications and granted patents nationally and regionally, as well as transplantation of one system of patent protection into all countries of the world present logical and desirable development. Nevertheless, it seems that this linear approach to the patent system suffers from a methodological flaw comparable to one which in natural sciences is called a delusion of material world's uniformity. As it is well known, the laws of physics applicable in our rooms or on the street are subject to significant modifications in the world of subatomic and interplanetary phenomena. Analogously, there is one optimal social environment for the current patent system in which the question of meaning and justification is almost superfluous because a positive answer is evident. However, there are also widespread geographical areas of suboptimal environments where issues of its meaning and purpose are legitimate ones, because entire social reality denies the meaning and the purpose.

In the world of social phenomena, the interaction of economical, sociological, legal and political laws is related to a certain system of values. And where social values are in play, a question of purpose comes up. Efforts to spare the patent system of in depth examinations lead to a kind of mystification, contributed to by different subjects in different ways and with different motives. The approach to patent law has, to a large extent, become an ideological issue, and the army of intellectual property right professors around the world act as a group of preachers who know because they believe (instead of believing because they know).[2]

The point of this article is an attempt to remind the reader of a fact that patent system is only one of man's tools used to produce certain social consequences in accordance with certain system of values and under certain conditions. Subsequently, we are

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[1] PEKIC, Besnilo, 294 (1987).

[2] The author does not exclude himself from this diagnosis.

going to briefly examine the basic economic assumptions for a patent system, the functional connection between some elements of patent law and economic consequences, and finally give our assessment of the role the patent system has been given in the global economy through mechanisms of World Trade Organization.

2. The Basis of the Political Economy of a Patent System

The natural habitat for a patent system is a *national* market based on private property and freedom of competition. In these conditions, rational economic subject is motivated to manage resources on the principle of maximum economic efficiency that results not only in benefitting that subject, but also contributes to national welfare. Simply put, there are two models of deviation from that state of dynamic balance. The first deviation refers to a situation when competition is limited or non-existing and a rational economic subject has a motive to maximize the benefit at the cost of national welfare. The second deviation refers to a situation when rational economic subject is not motivated to invest in the upgrading of his business because his competitors will make it impossible for him to appropriate an adequate portion of social benefit that would be achieved with an upgrade. So, both situations are harmful because they don't contribute to national welfare. In the first case, society defends itself with anti-monopoly measures. In the second case, society defends itself with interventions that have exactly the opposite – monopoly character. It is an exclusive intellectual property right – we are concretely speaking about patents – which represents production and trade monopoly provided by law in respect to the goods or services a patent relates to.[3] The monopoly plans to give economic incentives to a rational economic subject to invest in inventive activity by enabling him to appropriate critical measures of benefit (return on investment + profit) society will gain from the investment. What follows is a simple conclusion that a patent system is a form of state interventionism in the condition of a capitalistic economy, which aims to neutralize the mentioned weakness of a free competition system.[4]

What separates a patent from other measures of state intervention is that it is legally and economically established as a *property right* traditionally focusing on technical knowledge required for making a certain product or providing a certain service. Therefore, a patent as a form of intellectual property has a systemic character in modern legal-economic life.

The economic concept of a patent has been planned to follow the logic of private ownership over tangible objects: in the hands of rational economic subject, the

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[3] We use here the word 'monopoly' in its popular meaning, and not in the meaning it has in the context of anti-monopoly law. 'Patents do not always or even frequently confer monopoly power on their owners. Indeed, most patents do not confer monopoly power on their holders and most business conduct with respect to patents does not "unreasonably restrain" or serve to monopolize markets. Even when a patent does confer monopoly power, that alone does not create an antitrust violation.' U.S. Federal Trade Commission, Report of October 2003, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy, 9.

[4] For classical, so called utilitarian, explanation of the meaning and purpose of patent system *see* ARROW, Economic Welfare and Allocation of Resources for Invention, in: NELSON (ed.), The Rate and Direction of Invention Activity, 609-625 (1962).

object of protection becomes a source of economic benefit for its owner, but also a factor of national welfare.

However, it would be too simple and inaccurate to draw a conclusion from what was said before the ownership of tangibles and patented inventions have the same status in the hierarchy of legal values. The distinction is in the different economic nature of tangible and intangible objects.

Firstly, an invention is essentially an information. In a political economy, information falls into a category of non-rival goods i.e. goods that can be used at the same time by large (unlimited) number of subjects, without any influence on the very substance of goods. So, with information there is no risk they could be destroyed by people fighting to use them or by excessive use. In that sense, some of the fundamental reasons for the existence of property rights over tangible goods have no significance for the existence of a patent as an intellectual property right. Secondly, information is transferred by communication, which makes it possible for an unlimited number of people to use them. That characteristic is refered to as the non-exclusivity of a good. These two characteristics recommend invention, as a kind of information, to qualify as typical public good. Undisputedly, the freedom of creating and the freedom of using information are amongst the basic assumptions for human culture and progress.

Having that in mind, the aforementioned state intervention in the form of a patent has an unusually delicate task to include into economic parameters of economic utilization of someone else's invention the expense (investment) which was necessary for the development of that invention (so called internalization of external expense) in order to distribute that expense evenly to all those that are putting the invention to commercial use. This offers an investor the possibility to refund assets he has invested in the development of an invention, and also to get part of social benefit that comes from its utilization. This is considered to be exactly the essence of patent protection as a mechanism for stimulating technical creativity. The described task is very delicate as the wider social justification for patent protection is provided only if and to the extent the social loss from limited freedom of using someone else's inventions is smaller than the social benefit coming from increasing technological progress in this way.[5]

In order to understand the trade-off between a patent as a system for relatively artificial transformation of information into an object of private property, on the one hand, and freedom of using information as a public good, on the other hand, let us finally shed some light on the concept of social cost imminent to the patent system. Firstly, a patent issued for an object of protection which would emerge even without that form of incentive, is harmful because it gives to its owner an economically unjustifiable favorable market position, and in such way distorts competition. Secondly,

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[5] 'The fundamental trade-off in setting IPR is inescapable. On the one hand, static efficiency requires wide access to users at marginal social cost, which may be quite low. On the other hand, dynamic efficiency requires incentives to invest in new information for which social value exceeds development costs. These are both legitimate public goals, yet there is a clear conflict between them.' MASKUS, Intellectual Property Rights in Global Economy, Institute for International Economics 29 (2000).

every patent makes it harder for other participants in the market to decide to invest in further technological progress that implies use of someone else's patented invention because such an investment must be increased for the amount of royalty and the so called transaction expenses in obtaining a license. Thirdly, when giving the owner of a patent power to ban others from using patented invention, the patent appears to be a source of risk of under-utilization of an invention, and finally as a potential direct blocker of further technical development based on the use of that invention.

3. The Basic Economic Controversy over the Justifiability of Patent Protection

Maintaining our focus on the economic effects of patent protection within a **national** economy, we start from the fact that even to this day there are no clear scientific results to prove the existence of the patent system as indispensable condition for further technological progress. Still quoted as the most reliable finding in that regard is Fritz Machlup's study, in 1958 commissioned by the U.S. Senate's Legislative Committee: Being unable to offer scientific proof for the necessity of patent protection as a condition for technological progress, Machlup still does not claim that the patent system is harmful.[6] Current empirical analyses show that there are a small number of industries in which technological progress is significantly stimulated by patent protection,[7] and also show that a large number of patent holders use patent protection for the purposes that have more of a speculative than productive character.[8]

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[6] 'If one does not know whether a system as a whole (in contrast to certain features of it) is good or bad, the safest policy conclusion is to "muddle through". If we did not have a patent system, it would be irresponsible to recommend instituting one. But since we have had a patent system for a long time, it would be irresponsible, on the basis of our present knowledge to recommend abolishing it.' MACHLUP, An Economic Review of the Patent System, Patent Studies 15, Subcommittee on Patents, Trademarks and Copyright of the U.S. Senate Judiciary Committee, 85th Congress (1958).

[7] It is primarily about the chemical-pharmaceutical industry that distinguishes itself by so called discrete (non-cumulative) innovation, tremendous investment in research and development and long commercial duration of a product. Representatives of the majority of other branches of industry do not consider a patent as a necessary instrument for appropriating benefits from investing in research and development. *See* U.S. Federal Trade Commission, To Promote Invention, *supra* note 3, at 11, with reference to three empirical studies, the most recent being COHEN *et al.*, Protecting Their Intellectual Assets, National Bureau of Economic Research, working paper No. 7552 (2000), available at <http://papersdev.nber.org/papers/w7552> (as of February 2008).

[8] For example, providing provisional protection for an invention on the grounds of a pending application, blocking others from entering the market, creating extensive patent portfolio in order to increase financial (book) value of a company, ensuring influence in the preparation of technical standards, creating a favorable marketing image of oneself, making grounds for the patent violation lawsuits and collecting indemnity, measuring performance of a company or employees *etc.* For the attempt of quantifying the frequency of different motives for seeking patent protection in Europe *see* Study on Evaluating the Knowledge Economy – What are Patents Actually Worth, EC Project, ETD 2004/IM/E3/77, 110-111, available at <http://ec.europa. eu/internal_market/indprop/docs/patent/studies/patentstudy-report_en.pdf> (as of February 2008). Measured by grades from 1 to 5, in 6 EU countries it appeared that blocking others from entering the market and marketing reputation together have greater significance than any other individual reason for patenting.

There are economists who believe that, in economic relations connected with technological progress, the internalization of external expense could be achieved even in conditions of free competition, hence without establishing property rights over information (for example an invention). That would, according to them, be possible with the help of innovative marketing methods and with the use of adequate contractual arrangements, etc.[9]

For the moment not even thinking to stand on the side of patent skeptics and opponents, we wish to establish at least two more things. The first one refers to the allegedly invaluable role of patent system in dissemination of technical information. A general statement in the actual saga of patent protection is that patents encourage the publishing of new inventions in a way to free its owner of a need to keep his invention a secret out of fear of competition. There is a counter-argument to this statement which says that only those inventions whose economic exploitation entails the risk of early reverse-engineering are applied for patent protection. Contrary to that, those inventions which can be commercialized without real risk of reverse-engineering, a rational subject surely won't apply for protection. Therefore, from the aspect of disclosing inventions, *it is not the patent system which is decisive, but the type of invention and the intention to commercialize it*. There is a lack of valid and convincing scientific responses to this counter-argument. The second thing refers to the enforcement of patents (and intellectual property rights in general). One of biggest imperfections of intellectual property rights relates to the problem of great frequency and large extent of violations on the one hand and large expenses and relative inefficiency of enforcement on the other hand. Patent enthusiasts see the problems in an insufficient level of public awareness on the issue of intellectual property and are persistently trying to make people believe in the rhetoric that the unauthorized use of someone else's patent (or any other intangible property) represents theft, comparable to the situation when one comes out of a supermarket with a vegetable that hasn't been paid for. In the context of such perception of the problem, part of the blame lies on the countries that do not devote enough material, human and organizational resources to the efficient protection of intellectual property rights.

However, the problem of intellectual property rights violation and their enforcement can be perceived in a different way, too. Namely, each property right system involves certain expenses to ensure exclusivity of using the object of protection. Such 'fencing off' the object of protection, regardless of it being factual (for example video surveillance and alarm in a building) or legal (for example filing a re-vindication claim in a law suit) entails an expense, so that the actual or potential cost is built in not only the 'price' of that good but also in the social 'price' of that property system. Properly set, a balanced and historically mature property system implies that public awareness of it and of the social need of its preservation are the main factors of deterrence from rights violation. An example for that definitely is the property right in tangible objects. The fact that the situation with the intellectual

[9] For example PALMER, Intellectual Property – A Non-Posnerian Law and Economics Approach, 12 Hamline L. Rev. 261, 287-300 (1989).

property protection system is exactly the opposite, points to some sort of systemic deficit in the persuasiveness of the concept.

4. The Patent System as Legal Compromise Between Contradictory Economic Requirements

The patent system is legally defined by object of protection, conditions of protection and duration of protection. By analyzing these elements it is easy to come to a conclusion that they were formed in a way to set a certain balance between concept of information as private property, on one hand, and the concept of free use of information as public good, on the other hand. Besides the general imperative that it mustn't be harmful to the national economy, the patent system per se does not contain concrete endogenous criteria for setting the mentioned balance. On the contrary, it is noticeable that such a balance, not only through the history of patent law, but also geographically speaking, is very relative.

4.1 Object of Protection

As a phenomenon of industrial revolution from the end of XVIII and beginning of XIX century, the patent system from its beginning has been focused on inventions as technical solutions for technical problems. This attachment to technology and serving technological progress is still a dominant concept in the world. At the moment, the credit for the preservation of this concept in Europe goes to the authority of the European Patent Convention. But, the United States, as the greatest technological power of the world, using the poetic language of law drafters and the Supreme Court[10] and the fact that lawmakers never defined what is considered an invention in the sense of patent law, slowly but surely extends the concept of 'useful invention' from the field of technology to the field of mathematical-logical-organizational rules. The fact that today in the U.S.A. it is possible to patent, for example, a computer program[11] and a business method[12] that are strictly excluded from patent protection by the EPC,[13] says that, abstractly speaking, the patent system does not have its imminent strict logic and that the policies of patent protection in the U.S. and Europe are not the same.

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[10] P. J. FEDERICO, a principal draftsman of the 1952 recodification of Patent Law, in his testimony regarding that legislation: '[U]nder section 101 a person may have invented a machine or a manufactured product, which may include *anything under the sun that is made by man. . . .*' Hearings on H. R. 3760 before Subcommittee No. 3 of the House Committee on the Judiciary, 82d Cong., 1st Sess., 37 (1951). This quotation became part of the rationale of some Supreme Court Decisions broadening the interpretation of the statutory subject matter (*e.g. Diamond v. Chakrabarty*, 447 U.S. 303 (1980)).

[11] Such practice was provided by U.S. Court of Appeals, Federal Circuit, with its decisions starting from *In re Alappat*, 33 F.3d 1526 (1994) and *In re Lowry*, 32 F.3d 1579 (1994).

[12] Decision of the U.S. Court of Appeals, Federal Circuit in the case *State Street Bank&Trust Company v. Signature Financial Group, Inc.,* 149 F.3d 1368 (1998).

[13] Art. 52 Para. 2c, sentence 3 European Patent Convention.

Historical relativity of the definition of the object of patent protection is even more obvious: in the first half of the XX century countries that today are the most developed ones (with the exception of the United States) as per rule did not allow patenting inventions of chemical substances and pharmaceuticals, including that in some countries the list of non-patentable inventions extended to pesticides, insecticides, use of atomic energy etc. We presume here that it is not necessary to prove, in particular, that the gradual extension of the definition of protection object in comparative patent law was not a result of better insight of legal science into the essence of the patent system but of pragmatic public policy based on national economic and technological interests.

4.2 Conditions of Protection

The novelty of the invention is, abstractly speaking, a universally accepted condition of an invention's patentability. In its legal implementation, however, there are differences that constitute one of the serious obstacles in the international unification of substantive patent law.

The inventive step (non-obviousness) is also a universally accepted condition of an invention's patentability. Together with novelty, it represents the heart of an economic logic patent system relies on: exclusive right of production and trade is gained only for products and services that did not already exist (novelty) and that constitute an extraordinary step forward in reference to the usual and predictable pace of technological changes (inventive step).

In spite of efforts of legal practice and science to objectify criteria for grading the level of inventiveness, it remains one relative criterion dependant on subjective judgment.[14] Nowadays, oscillations in the strictness of this criterion in comparative law are alleviated a great deal by the existence of the European patent system, on one hand, and a global tendency of lowering this criterion in practice, on the other hand. However, lowering this criterion not only contributes to enormous growth in the number of granted patents around the world (which causes a variety of well known practical problems) but indirectly puts the economic sense of patent protection into question.

4.3 Content and Duration of Protection

The exclusive right to production and trade of goods and services a patent relates to, is a universal and indisputably important element which ensures the economic function of a patent. A delicate and problematic aspect of protection content pertains to its scope and its limitations.

The issue of permitted level of abstraction in the formulation of patent claims, sensibility to demarcation between discovery and invention, broadness of interpretation and application of the doctrine on technical equivalents are factors that deter-

[14] For a relatively good analysis of the problem, from the practical aspect, *see* U.S. Federal Trade Commission, To Promote Innovation, *supra* note 3, chapter 4, 6-20.

mine whether in the patent system protection of the interests of the owner of a patent will prevail to the detriment of public interest or vice versa.[15]

The restrictions of the patent are legal concepts which directly reflect the fear that a patent could, in a particular case, bring more harm than benefit to the national economy. In the multitude of such restrictions as the most delicate ones emerge a non-voluntary license and permissibility of a free use of patented invention for the purpose of research and development. A non-voluntary license (which, from a historical perspective, has pushed out a draconic measure of patent forfeiture for failure to work the patented invention) has turned into an ideological topic: least developed and developing countries (hereinafter refered to as LDCs and DCs) insist on it as the main rule of patent law although a non-voluntary license is rare and with difficulties applied in practice; on the other side, owners of patents from developed countries (although these countries have accepted that institute in TRIPS and its elaboration in Doha declaration)[16] make a political problem every time an LDC or DC resorts to application of this institute.[17]

Patenting a gene/protein sequence as a tool for research in biotechnology and pharmacy has opened a debate over the interpretation of freedom of the use of patented inventions for the purpose of research and development. Quite logically, this has turned into a debate over a nuance whether a patented invention is to be used to conduct research and development on it or with the help of it. If the latter were correct, then a patent for that tool loses its meaning; otherwise the question emerges whether patenting of that kind of invention is contrary to the idea that a patent must serve technological progress and not hamper it.[18]

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[15] On complex economic aspects of those issues *see* SCOTCHMER, Standing on the Shoulders of Giants – Cumulative Research and the Patent Law, 5 Journal of Economic Perspectives 29-41 (1991); GILBERT/SHAPIRO, Optimal Patent Length and Breadth, 21 RAND Journal of Economics 106-113 (1990); O'DONOGHUE/SCOTCHMER/THISSE, Patent Breath, Patent Life and the Pace of Technological Progress, 7 Journal of Economics and Management Strategy 1-32 (1998); MERGES, On the Complex Economics of Patent Scope, 90 Colum. L. Rev. 839-916 (1990).

[16] The Declaration on the TRIPS Agreement and Public Health, adopted in Doha in 2001.

[17] Amongst the latest, let us mention the example of a compulsory license issued in 2007 in Thailand for Kaletra drug, protected by patent of the U.S. company Abbot Laboratories. Since that was the third in line of compulsory licenses issued in Thailand for HIV/AIDS treatment drugs (after those for drugs patented in the name of companies Merck and Sanofi), what followed was 'a well financed public relations and lobbying attack on the Thailand government, featuring a large number of pharmaceutical industry supported groups (such as AEI, USA for Innovation, CMPI, Hudson Institute, IPN, e.t.c.) and industry funded consultants and "experts"'. Abbot Laboratories, out of protest for ' violation of its patents' by Thai government, withdrew all of its drugs from this country. The irony of this case is in the fact that Abbot Laboratories almost at the same time unsuccessfully appeared in the U.S.A. in the role of applicant for non-voluntary license for Hepatitis C virus (HCV) genotyping test kits, patented in the name of U.S. company Innogenetics. *See* LOVE, Abbott recently sought compulsory license in US patent dispute, Knowledge Ecology International (2007), available at <http://www.keionline.org/index.php?option=com_content&task=view&id=43> (as of February 2008).

[18] On the complexity of this issue and opposing standpoints in reference to it *see* for example WALSH/ARORA/COHEN, Effects of Research Tools Patents and Licensing on Biomedical Innovation, National Research Council: Patents in the Knowledge Based Economy, U.S.A. 285-335 (2003).

Finally, why a patent lasts for twenty years after the date of application is a question to which there is no answer but a legal positivistic one. It is evident that historically there is a mild tendency of extending the time-limit of protection in a direct way or through specific instruments such is a supplementary protection certificate for some types of inventions (pharmaceuticals, herbicides, fungicides).

5. The Patent System in a Globalized Economy

The opening of the global market with support and protection of international legal instruments of the World Trade Organization has added a new twist to the views of the meaning and justification of patent protection. The TRIPS Agreement has extended a system of relatively strong patent protection to the entire world thus effectuating something which was incomprehensible from the aspect of Machlup's view of things fifty years ago.[19] What could jeopardize the credibility of Machlup's position today is the fact that technological progress has accelerated quite a bit in the last half a century and that society has become more dependent on fast production and economic utilization of ideas than it was before. A metaphor of society based on the knowledge-economy, which implies that intellectual property right has become 'the property right of the XXI century', must surely be used with caution for the obvious fact that the difference in economic development between some parts of the world is greater than ever.[20] The inadequacy of application of high standards of patent protection on LDCs and DCs all over the world is no secret for today's economists either, amongst whom there are laureates of the Nobel Prize for economics.[21] A counterbalance to the criticism of TRIPS are viewpoints that, of course, do not advocate that strong patent protection is beneficial for economies of LDCs and DCs, but see TRIPS in the context of the entire system of international trade. The point could be described in the following way: for LDCs and DCs, TRIPS (with strong protection of intellectual property in general) is the entrance ticket to the world of international economic relations where such countries can: freely export their raw materials and products to the countries of the developed

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[19] Continuance of Machlup's thought from the footnote 6 is as follows: 'This last statement refers to a country such as the U.S. – not to a small country and not a predominantly nonindustrial country, where a different weight of argument might well suggest another conclusion.' MACHLUP, *supra* note 6.

[20] 'Distribution of *per capita* income between countries has become more unequal: in 1960 the average per capita GDP in the richest twenty countries was fifteen times that of the poorest twenty; by 2000 the gap has widened to thirty times.' European Patent Office, Scenarios for the Future 24 (2007), with reference to World Bank: Does more international trade openness worsen inequality?, Briefing Paper Part 3, available at <http://www1.worldbank.org/economicpolicy/globalization/documents/AssessingGlobalizationP3.pdf> (as of February 2008).

[21] 'Intellectual property is important, but the appropriate intellectual-property regime for a developing country is different from that for an advanced industrial country. The TRIPS' scheme failed to recognize this. In fact, intellectual property should never have been included in a trade agreement in the first place, at least partly because its regulation is demonstrably beyond the competency of trade negotiators.' STIGLITZ, 'Intellectual Property Rights and Wrongs', Daily Times, Pakistan, August 16, 2005.

world; count on the situation when, due to the difference in labor cost, they will become a destination for the transfer of a labor-intensive industry from developed countries. All that, in combination with direct foreign investments and the transfer of modern technology (from developed countries) that would be stimulated by strong protection of intellectual property rights, should lead to economic development of these countries, which would be the basis for creation, protection and economic utilization of domestic intellectual property.[22]

With our own reliable data and valid reasons lacking, it is not our intention to keep the side of either opponents or proponents of TRIPS. Instead, we shall be reminded of the generally known fact that the initiative for establishing one multilaterally accepted system of intellectual property protection, by the standards of developed world, has been launched from the circles of the pharmaceutical and entertainment industry in the U.S.[23] When that initiative was shaped into diplomatic action, and then turned into an avalanche of US government's pressure on the rest of the world, LDCs and DCs did not have much of a choice. TRIPS was accepted as a price that had to be paid for free access to the world market. From this comes a conclusion that not even proponents of TRIPS can deny: *free access to world market, and not intellectual property rights established by TRIPS, was offered to the LDCs and DCs as a 'powerful means of economic development'*.[24]

Therefore, if we start from the premise that TRIPS and GATT constitute a single political package which makes the opening of the global market possible, then it is hard not to agree with the thesis advocated by some TRIPS enthusiasts according to which LDCs and DCs are better off with TRIPS than without it, since in the latter case they wouldn't have access to the global market at all.

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[22] STRAUS, On the role of intellectual property in the new world order, 3 European lawyer 26-40 (2006). Claim that the whole system can function, the author supports by the statistical data of India and China. Maskus is slightly more cautious: 'Economic analysis demonstrates that such a fundamental change in policy norms should have a host of complex effects. IPRs operate in a world of market failiures and imperfections. Thus, it is impossible to guarantee as a matter of logic or fact that stronger IPRs will generate economic gains for all countries. Indeed, the implementation of stronger IPRs alone could make some nations worse off. In this sense, reforming IPRs is very different from liberalizing trade barriers.' MASKUS, *supra* note 5, at 236. However: 'Long-run gains would come at the expense of costlier access in the medium term. Technological learning must shift from uncompensated imitation of lower-quality techniques to compensated acquisition of higher-quality techniques. The source of an information spillover should move from copying by free riders to incremental innovation by fair followers. This transition could be difficult… . The challenge refers both to IPRs themselves and to the extensive complementary policies that make them effective.' MASKUS, *supra* note 5, at 237.

[23] 'Both the patent and the copyright interests, led by chief executives of pharmaceutical manufacturers, entertainment producers and software providers, have effectively leveraged their market positions to encourage policy makers to wield U.S. economic power abroad on their behalf.' RYAN, Knowledge Diplomacy – Global Competition and the Politics of Intellectual Property Rights 9 (1998).

[24] Very explicitly in that effect, *see* HINDLEY, The TRIPS Agreement: The Damage to the WTO, in: PUGATCH (ed.), The Intellectual Property Debate – Perspectives from Law, Economics and Political Economy 40 (2006).

6. Final Thoughts and Outlook

Previous reflections surely don't lead to a conclusion that the patent system has no meaning or justification. Previous reflections only emphasize one's right to speak of that meaning and justification without ideological mystification[25] that proponents and opponents of a patent system often resort to.

The WIPO has proclaimed the demystification of intellectual property rights as one of its goals.[26] However, for the moment one of the most significant contributions to the non-ideologized view of global issues of patent protection was given by the European Patent Organization in its study 'Scenarios for the Future'.[27] The only scenario of the four that were elaborated,[28] which could be considered evolutionary, includes a global modification of the system which would significantly soften its current rigidity and in such a way adjust to challenges that the planet will inevitably face during this century. The document we are talking about is all the more important because it originated from an organization whose members are countries with economic systems and the level of development that presents a natural ground for the functioning of current patent protection, or at least have a potential to become that in the near future.

Constant requests for even stronger legal protection of intellectual property finally also open the question of the future social organization of information production. 'The point is that once one recognizes that intellectual property rules affect how our society produces information and who is likely to be an effective producer, and not only how much information our economy produces, the choices

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[25] '… the term 'intellectual property rights' is in itself politically constituted and not as value free, as one might assume. It is the result of well balanced and strategically coordinated efforts during the 19th century which defused the negative implications of the previous term: "intellectual monopoly privileges". This kind of political triumph enabled advocates of IPRs to emphasize their pure "moral content" in terms of rights, and their economic desirability in terms of property.' PUGATCH, The International Political Economy of Intellectual Property Rights 4 (2004), with reference to MACHLUP/PENROSE, The Patent Controversy in the Nineteenth Century, 10 Journal of Economic History 1-29 (1950).

[26] On the WIPO's website it is possible to identify about forty documents (platforms, speeches, conclusions from sessions of General Assembly) in which the concept of demystification of intellectual property is mentioned or elaborated as one of objectives of the WIPO's policy. One would say that there is no institution in the world that has more legitimacy than this one to deal with essential features and problems of intellectual property rights. Unfortunately, it seems that the WIPO considers popularization of intellectual property rights to be the demystification of intellectual property. Although, from the position of political realism and legal positivism, popularization of intellectual property rights is maybe even a more important task than demystification, it should be noted that popularization only recycles myths of intellectual property.

[27] European Patent Organisation, Scenarios for the Future (2007).

[28] Out of four elaborated scenarios of patent system's global development to the year 2025, three anticipate dramatic changes. Out of those three, two scenarios anticipate some sort of system erosion as a result of its untimely adjustment to realities and challenges of the world.

with respect to intellectual property rules become irreducibly normative or political.'[29]

Although challenges or deficits of the current system of patent protection are visible even today, it is certain that some change in the global constellation of economic-political powers is necessary to clear the path for constructive discourse on this subject in international forums such as the WIPO and WTO. Until then, by combining the conservative doctrine of not changing the old until something better and new is found with the doctrine that defective order is better than disorder, in our daily lives we have to continue to apply and elaborate the current system of patent protection, as a given condition. Still, it would be good to remember that this condition is not God-given nor is it a reflex of great social wisdom, but it comes from the power of capital which today shapes dominant public policy and attempts to buy everything, including our faith in patent law.[30]

[29] BENKLER, Intellectual Property and the Organization of information Production, 22 International Review of Law and Economics 99 (2002). 'The differential effects of increases in intellectual property protection on divergent strategies suggest that such increases lead to commercialization, concentration and homogenization of information production. Non-commercial producers will systematically shift to commercial strategies. Small-scale producers will systematically be bought up by large-scale organizations that integrate inventory management with new production. And inventory owners will systematically misallocate human creativity to reworking owned inventory rather than to utilizing the best information inputs available to produce the best new information product.' *Id.,* at 93.

[30] 'Regardless of how trivial and banal this may sound, IPRs are but one of many factors that affect a particular situation. And no matter if we view them as part of the solution or as part of the problem, IPRs are never the only factor – the silver bullet – and sometimes not even the most important factor. This should be taken into account and remembered even when focusing solely on IPR.' PUGATCH (ed.), The Intellectual Property Debate, *supra* note 24, at 9.

Patents and the Economic Incentive to Invent

*Bojan Pretnar**

1. Introduction

Patents are regularly considered as an economic incentive for innovation, in the sense that they provide inventors (more properly, innovators) a possibility to obtain an economic reward for their creative efforts. The reward secured is then a means, if not *the* means to pursue the ultimate aim to promote the technical progress – the logic laid down, *inter alia,* in Section 8 of Article 1 of the U.S. Constitution. While there is virtually no disagreement that inventors do deserve a reward, the subject matter of dispute between pro-patent and anti-patent advocates is whether the patent system is an appropriate or inappropriate form of securing inventors a socially acceptable and justifiable reward.

The said dispute has been indeed present throughout the history. Patents certainly played a crucial role as a vehicle of technical progress at least since the dawn of first industrial revolution. In his history of technology, Cardwell notes the following:

> By the end of the seventeenth century the most active centres of technological invention were to be found in western Europe, in France and the low Countries and, slightly later, in England and Scandinavia. During the years between Galileo's first publications and the appearance of Newton's Principia there were several changes that radically affected the technological process.
>
> Chronologically, the first of these was the movement to reform the patent system in England …
>
> Prior to effective patent laws the only protection the inventor enjoyed was the uncertain one of secrecy. This necessarily discouraged invention and retarded innovation; it also had the incidental effect of surrounding the inventor with an aura of mystery and myth that has not been entirely dissipated, even today.[1]

In a similar manner, Dyson observes:

> But for most of recorded history, having a bright idea was no protection against being ripped off by the unscrupulous…It is not a whole lot better now, but there is something that, in theory at least, makes sure that the credit and the money for the invention go where they are due: patents.[2]

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* The views expressed by the author are strictly personal and do not necessarily represent the views of the World Intellectual Property Organization (WIPO), of which the author is currently a staff member.

1 CARDWELL, The Norton History of Technology, 105-106 (1995).

2 DYSON, Introduction: Man's need to invent, in: DYSON/UHLIG (eds.), The Mammoth Book of Great Inventions, vii (2001).

Notwithstanding its historically proven role in promoting technical progress, the patent system has always had adversaries. There were periods when patent laws were severely weakened or even repealed, such as, for example, the period from 1850 to 1873, which Machlup marks as the *antipatent movement*.[3] More than a century later, developing countries were voicing strong demands for an erosion of the patent system, which culminated in the diplomatic conference for revision of the Paris Convention convened in Nairobi in 1980, but the attempts to revise it eventually failed. Nowadays, we are again witnessing a resurgence of 'antipatent' views, though this time on a much larger scale than in the past.

In the light of the history, it should actually not be a surprise that at present we can observe the same divide. Along with an unprecedential, and still rapidly growing number of patent applications filed worldwide, there is also an equally growing critique of the patent system, both in terms of its scope, as well as in its intensity. As Straus puts it:

> The criticism of the international system of intellectual property protection and the broad concept of these rights, has become increasingly vehement not only in developing countries …
>
> The articles of Maskus and Reichman, Musungu and Dutfield, and Boyle may serve as examples of these criticisms, each of them in some way questions the current system…or finally, as seen in Boyle, to call the entire system into question.[4]

Bearing in mind lessons from the past, the current wave of critique of the patent system could be viewed simply as a repetition of history. However, it is indeed astonishing that, in more than two centuries following adoption of first modern patent laws, the lasting and persisting controversy about *pros* and *cons* of the patent system as an instrument of technical progress is still taking place.

Why has it not been possible to resolve all these fundamental issues behind the never-ending controversy?

We believe that a major reason for unresolved dilemmas may well be the flawed economic analysis of patents. This is a strong claim, but if one recognizes a hardly believable fact that an adequate economic interpretation of knowledge, which is crucial in understanding the economic nature of patents, has been a very recent achievement, then this claim may not sound as an exaggeration any more. Moreover, patents have initially been a neglected topic in economic research. However, the most fertile source of the lasting controversy is likely to be the fact that, since early attempts, patents have been predominantly studied on the basis of the ubiquitous *belief* that patents are monopolies. This belief has remained a cornerstone, if not *the* cornerstone, of the mainstream economic doctrine: patents are by their inherent monopolistic nature *a priori* a kind of suboptimal *trade-off* from the welfare point of view. Despite being occasionally challenged, the *patent-equals-monopoly* view has eventually evolved into a kind of an almost axiomatic truth. If

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[3] MACHLUP, Patents, International Encyclopedia of the Social Sciences 463 (1968).

[4] STRAUS, The Impact of the New World Order on Economic Development: The Role of the Intellectual Property Rights System, 1 European Review 47, 47-48 (2007).

so, then the lasting controversy could be, in fact not unconvincingly, explained as an uninterrupted search for the most adequate 'second-best' optimum of the supposedly inherent *trade-off*.

However, the *patent-is-monopoly* doctrine is actually a serious misconception in economics. We recently showed[5] that equating patents with monopolies is just an outdated *assumption* within the mainstream economic analysis, and thus far from being an unshakably valid axiom. Having replaced it with an alternative assumption that better reflects the modern, knowledge-based economy, and having correctly interpreted legal principles of patent law in economic terms, we were able to develop a formal model in which patents (for cost-reducing innovations) are compatible even with perfect competition, however imaginary such a competitive setting may be.

In our analysis that has led to this result, we also found that there is yet another important concept that needs to be looked at, the concept known in economics as *Incentive to Invent.* Incentive to invent is obviously relevant for technical progress, and it is thus important to know how it is linked to patents.

Incentive to invent in its standard, taken-for-granted form is viewed just as an integral part of the overall *patent-equals-monopoly* doctrine, to the extent that the formulation of the former directly implies the formulation of the latter. This link is actually the reason why patents *per se* are so to say automatically proclaimed as both a monopoly, as well as an incentive, if not *the* incentive, to invent. In other words, the concept of incentive to invent is inseparably linked to the concept that patents are monopolies; both concepts are just like two sides of a coin.

The 'inseparability' of the two concepts further implies that the incentive to invent *must* be postulated differently, whenever the basic *patent-equals-monopoly* doctrine is challenged by an alternative set of assumptions. This was the approach we followed in our competitive model of patents: we did replace the prevailing 'monopolistic' incentive to invent with what we called there the competitive incentive.[6] For reasons of scope, however, we omitted a more thorough justification of the proposed concept of incentive to invent, as we have devoted most of attention to arguments supporting our claim that patents are compatible with competition. In addition, we did not pay a closer look at a few significant methodological flaws within the prevailing concept of incentive to invent as such.

Therefore, the aim of this contribution is to fill this gap with an expanded critical analysis of the traditional economic concept of incentive to invent and its impact on patents – an analysis, which complements and additionally justifies the proposed competitive incentive as applied in our competitive model of patents.

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[5] PRETNAR, The Economic Impact of Patents in Knowledge-Based Economy, 34 IIC 887-906 (2003).

[6] *Id.,* at 893-894.

2. Patents and Knowledge in Economics

It may be useful to begin our analysis from a broader perspective concerning economic analysis of patents in the past. In this respect, it is worth recalling the well-known fact that patents have been severely neglected for a long time in economics. In 1951, Edith Penrose frankly wrote the following: 'Although the patent system has developed primarily to promote economic ends, economists have devoted very little attention to it and none at all to the international patent system.'[7] And as late as in 1986, George Priest came to the conclusion that the (economic) literature 'has taught us almost nothing.'[8]

However little was said in the past, the debate whether patents are good or bad for society has been always rooted in the either explicit or implicit premise that patents were monopolies.[9] On the other hand, intellectual property in general and patent system in particular has become a prime topic in economics in the last few decades; articles and books in this field are published at the pace that almost resembles the accelerating pace of patent applications. Yet, one may observe that some fundamental economic concepts about patents conceived in the past have remained virtually unchanged in spite of enormous changes that have taken place since then. Consequently, these concepts are still serving as a valid basis for modern microeconomic analysis of patents, and this fact naturally raises the question why this has been so.

The subject matter of patent protection are inventions; and inventions are by definition a valuable addition to the stock of knowledge. In this respect, it is worth noting perhaps an astonishing fact that the economic science was not capable of a formal explanation of the economic impact of knowledge for more than two centuries. The birth of modern economics is associated with the publication of Smith's *Wealth of Nations* in 1776, and it is interesting to note that the very first sentence in this seminal book (Chapter 1, entitled *Of the Division of Labour*) alludes to the technical progress: 'The greatest improvement in the productive powers of labour, and the greatest part of the skill, dexterity, and judgment with which is any where directed, or applied, seem to have been the effects of the division of labour.'[10] Yet a formal theory of the technical progress, illustrated by Smith with a division of labour in a pin factory, was not set on the right footing for more than two centuries – for a number of reasons eloquently presented by Warsh.[11] To be more specific, Warsh argues that it was not until 1990 when the relevant breakthrough in economic science was achieved:

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7 PENROSE, The Economics of International Patent System, xi (1951).

8 PRIEST, What Economists Can Tell Lawyers about Intellectual Property, in: PALMER/ZERBA, Research in Law and Economics 20 (1986).

9 MACHLUP, *supra* note 3, at 466.

10 SMITH, The Wealth of Nations 3 (1776, 1994 Modern Library Edition).

11 WARSH, Knowledge and the Wealth of Nations – A Story of Economic Discovery (2006).

> Yet it was not until October 1990 when a thirty-six-year-old University of Chicago economist named Paul Romer published a mathematical model of economic growth in a mainstream journal that the economics of knowledge at last came into focus, after more than two centuries of informal and uneasy presence in the background…The first paragraph contained a sentence that was initially more puzzling than not: 'The distinguishing feature of…technology as an input is that it is neither a conventional good nor a public good; it is nonrival, partially excludable good …
>
> And thereupon hangs a tale. For that particular sentence, written more than fifteen years ago and still not widely understood, initiated a far-reaching conceptual rearrangement in economics. It did so by augmenting the familiar distinction between 'public' goods, supplied by governments, and 'private' goods supplied by market participants, with a second opposition, between 'rival' and 'nonrival' goods…Inevitably, most goods must consist of at least a little of each.[12]

Perhaps it is worth mentioning *in passim* that in our competitive model of patents we explicitly claimed that patent law has made patents to be simultaneously both private and public goods,[13] meaning that we had arrived to the same terminology as Warsh about two years earlier. Nonetheless, the main point we wish to make here is that the inability of economics to solve the puzzle about the nature of knowledge for more than two centuries is likely to be a major explanation why the *patent-equals monopoly* doctrine with its roots in the distant past has so stubbornly survived up to recent times.

3. The Prevailing Concept of Incentive to Invent

The notion of incentive to invent, however, has appeared several decades before the Romer's 'discovery' of the economic interpretation of knowledge. It has been largely associated with the famous theory of creative destruction by Joseph Schumpeter, published first in 1942,[14] and not specifically with patents. In brief, along with the claim that competition with a new technology, new sources of supply etc., Schumpeter also argued that large companies with a certain degree of monopolistic or oligopolistic power would be more suitable for pursuing innovation than small firms without any monopoly power, which are quite typical for (textbook) perfect competition. It was this second claim that gave rise to a notable discussion whether Schumpeter was right or wrong. One of the most influential contributions in this respect was the analysis by Kenneth Arrow – a Nobel Laureate in economics – published in 1962.[15] Arrow's analysis is so influential that, in one way or another, it is a standard feature in most textbooks on industrial organization, which nowadays regularly contain a chapter on technical change, R&D, and innovation. Indeed, Davies claims that…'Any survey of modern, neo-classical theory of technical

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[12] *Id.,* at xv-xvi.

[13] PRETNAR, *supra* note 5, at 888.

[14] SCHUMPETER, Capitalism, Socialism and Democracy, 81-106 (3rd ed. 1950)

[15] ARROW, Economic Welfare and the Allocation of Resources for Invention, in: NELSON (ed), The Rate and Direction of Inventive Activity 609-625 (1962).

change should begin with Arrow's (1962) seminal analysis of the incentives to invent.'[16] For this reason, we shall concentrate on our analysis almost exclusively to Arrow's views about incentive to invent.

Let us first note that, according to Arrow, Schumpeter was wrong: 'It will be argued that the incentive to invent is less under monopolistic than under competitive conditions but even in the latter case it will be less than is socially desirable.'[17] This conclusion (later challenged by Demsetz, though on different grounds not relevant for our purposes here), however, crucially depends upon Arrow's own definition of the incentive to invent: 'I will examine here the incentives to invent for monopolistic and competitive markets, that is, I will compare the potential profits from an invention with the costs.'[18]

What is immediately clear is that Arrow adopts a simple quantitative measure: incentive to invent is merely equated with the amount of the profit from innovation. This profit, not surprisingly, is *a priori* considered as the *monopoly profit* extracted from innovation. Arrow assumes that invention is perfectly protected by what he calls *suitable legal measures.*[19] Thus, the classic *patent-equals-monopoly* doctrine does not only stand on its own, but it is also directly applied as the basis for the definition of incentive to invent, which naturally indicates the close relationship between the two concepts. Under these assumptions, then *prima facie* nothing is wrong with Arrow's concept of incentive to invent.

However, a closer look reveals that the said concept of incentive to invent contains certain misconceptions; there is, of course, a varying degree among them as far as their impact on final findings is concerned.

We may begin with the simplest and probably least important point to be criticized – the terminology. Incentive to invent is not the same as an incentive to innovate. The distinction between invention and innovation, as set by Schumpeter, is important; it is only innovation that is economically relevant. Therefore, it would be more correct to speak about incentive to innovate, rather than about incentive to invent. In fact, Arrow is using the two terms interchangeably, what may imply that there is no difference between invention and innovation. In 1968 Machlup, however, differentiated between what he called incentives for inventive activity, and incentives for development and investment, respectively.[20] Nevertheless, for purely practical reasons, we shall retain the notion of incentive to invent despite acknowledging its inappropriateness.

The next point of critique, however, is essential. As already said, Arrow has chosen a simple *quantitative* approach for measuring incentive to invent; he is equating incentive to invent with the amount of monopoly profit stemming from innovation. Such an approach is known in economic jargon as *cardinal* measure, in

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[16] DAVIES, Technical Change, Productivity and Market Structure, in: DAVIES/LYONS/DIXON/GEROSKI, Economics of Industrial Organisation 196 (1988).
[17] ARROW, *supra* note 15, at 619.
[18] *Id.*, at 619.
[19] *Id.,* at 615.
[20] MACHLUP, *supra* note 3, at 466-467.

contrast to *ordinal* measure, according to which only *ranking* of available choices may be observed, but not its quantitative impact. Ordinal approach is a standard feature in the neo-classic theory of consumer: under the principle of utility maximization, a consumer always strives to maximize his utility by equating his income with the highest ordinally ranking preference curve. Ordinal ranking means that any number attached to a certain preference curve serves just as an index: a preference curve number 2 is of a higher rank than preference curve number 1, and the same is true if the number 2 is arbitrarily replaced by any number greater than 1, say, for example, 65.

As far as the other side of the market is concerned, the maximization principle is also the fundamental proposition how firms – suppliers of the goods – behave: firms by definition strive to maximize their profits, so we speak about profit maximization principle. The amount of profit that is to be maximized, however, significantly depends on given market conditions. In perfect competition, all costs are covered, but no monopolistic (or economic) profit could be extracted; in another extreme, the pure monopoly, one seller gets the highest possible monopoly profit.

Comparing consumer's utility maximization with seller's profit maximization, one can immediately note an obvious difference – the profit is in principle quantitatively, or cardinally, measurable, whereas utility is not. However, this difference does not mean that the – implicitly assumed – *incentives* behind the either of the two maximization principles differ from each other. For the fundamental maximization principle in economics to hold, be it utility maximization or profit maximization, or any other maximization goal, it must be true that the corresponding incentive *always exists* as long as there is certain benefit in moving from an initial inferior position into the maximizing position – even if the benefit is so small that is barely worth of being noted. Therefore, the incentive as such does not depend upon the size of the benefit that may be achieved by maximizing either utility or profit. This then further implies that the corresponding incentive *per se* cannot be measured in the same manner as the desired *effect* of respective maximization action; in fact, it cannot be measured at all.

In other words, incentive can only take two states – it either exists, or it does not exist. All what is of relevance is to maintain the maximization principle as an almost axiomatic proposition how economic agents – consumers, firms – behave. Whenever there is a possibility to improve his or her economic benefit, then the incentive to make such an improvement comes into existence, regardless of how large or small such a benefit may be, and regardless whether it is measured cardinally or ordinally. As a corollary, the incentive completely vanishes after the maximization objective has been eventually achieved.

The above reasoning is in fact just an application of the more general fundamental logic, found in virtually any textbook, how competition as such works against a monopoly. Take, for example, how Hirshleifer *et al.* describe this logic: 'Competition tends to reduce economic profit to zero. A profit opportunity in an industry induces new firms to enter, so industry output grows and product prices fall…Entry stops (long-run equilibrium is attained) when no firm still outside the industry can

earn profit within it.'[21] What is obvious from this story is that new competitors, who have entered the market at a later stage, inevitably benefit *less* from the available economic (*i.e.,* monopoly) profit (which actually attracted them to enter), relative to those who have entered the market earlier. Nonetheless, despite getting a smaller share of the monopoly profit, *all* these latecomers *do* enter the market, meaning that their incentives *as such* do not differ from incentives of earlier entrants. It then follows that it actually makes no sense to claim that various entrants have either greater or smaller incentive, depending upon the actual share of profit obtained by either an earlier or a later entry. Therefore, incentive as such must be clearly distinguished as a separate issue from effects eventually achieved by a move initiated by the respective incentive which, therefore, cannot be measured in a meaningful way.

If we apply our findings to the Arrow's concept of incentive to invent – ignoring for the moment its link to the *patent-equals-monopoly* doctrine – then we come to an interesting conclusion: *however widely accepted and consequently spread in economics, the main result of Arrow's analysis, that is, that Schumpeter was wrong, does not hold*.

A small comparison may be helpful to reinforce the above challenging, possibly even provocative conclusion that Arrow missed the point. Let us, therefore, first briefly sketch Arrow's reasoning. According to his model, *both* competitor and monopolist benefit if they innovate; both are better off after innovation in comparison of their initial, pre-innovation situation. However, if the monopolist innovates, then he must give up his pre-innovation monopoly; the competitor's monopoly profit, in contrast, is by assumption zero. Therefore, while both firms benefit from innovation, Arrow is surely right that competitor's net gain from innovation is greater than the gain of monopolist, because the latter must subtract his pre-innovation monopoly profit from that earned by innovation. Relying on the postulated cardinal definition of incentive to invent, Arrow consequently concludes that the incentive to invent is lesser under monopolistic than competitive conditions – the result as already quoted above. This result has become, not surprisingly, widely spread in literature as the so-called *replacement effect*:[22] the monopolist is 'replacing' his (smaller) pre-innovation profit with the (higher) post-innovation profit. Hence, he has less incentive to innovate than the competitor does, as the net gain of the monopolist is smaller than that of competitor.

Now, what happens if Arrow's cardinal concept of incentive being put aside? As before, the fact that both the monopolist and competitor benefit if they innovate still holds. Therefore, both observed firms *do have a positive incentive to innovate*; guided by the fundamental principle of profit maximization, they both would thus undertake the innovation *in any case*. True, they do not earn the same profit, but this fact does not affect the decision to innovate *as such.*

At this point of analysis, we may notice yet another problematic point in Arrow's model: in making a decision to innovate, both the monopolist and compet-

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[21] HIRSCHLEIFER J./GLAZER/HIRSCHLEIFER D., Price Theory and Applications, 201-202 (7th ed. 2005).

[22] *Cf.* PEPPAL/RICHARDS/NORMAN, Industrial Organization, 566 (3rd ed. 2005).

itor obviously compare *only their own situation, i.e. profit,* before and after innovation, respectively. In other words, when the monopolist realizes his own incentive to innovate, he is *not* taking into account the competitor's position *at all* – and vice versa. In fact, the strictly 'selfish' reasoning by each and every individual economic agent is the fundamental behavioral assumption, known since immortal *invisible hand* metaphor by Adam Smith, on the basis of which rests the whole economic theory:

> [H]e intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention…By pursuing his own interest, he frequently promotes that of the society more effectually than when he really intends to promote it.[23]

Given the purpose of Arrow's exercise, it is of course obvious that he had to compare the monopolist with the competitor. However, what his analysis shows is that the benefits from innovation are different – but this fact has no direct impact on incentive as such; larger or smaller profit simply cannot be translated into a kind of different 'sizes' of incentives. In this respect, we know from economics that interpersonal comparison even for ordinally measured utility is not possible, let alone for the incentives, which are not measurable at all.

Considering all the above reasoning, we eventually arrive at to a completely different conclusion to that of Arrow in respect of the question whether Schumpeter was right or wrong. Since either monopolist or competitor shall have an incentive to innovate, it is consequently not possible to conclude that the competitor has a greater incentive than the monopolist, just because his yield from innovation is greater. All what can be said is that both would *in any case* innovate. This fact, however, further implies that the opposite conclusion, that is, that Schumpeter was right, cannot be confirmed either; the immeasurable incentive to invent as such does not allow *any* conclusion concerning whose incentive, monopolist's or competitor's, is greater or lesser. In other words, incentive to invent, if properly interpreted, does not allow either to confirm or to refute Schumpeter's predictions.

But, what does all that mean as far as patents are concerned? In our view, the most relevant implication, in contrast to the approach followed by Arrow, is that there is no possibility to make a kind of a list in which firms would be ranked, say, from that with the greatest incentive to invent down to a firm with the lowest incentive. If each and every firm benefits from innovation regardless of the amount of the net gain, then *all* firms shall undertake innovation, whether big or small monopolists or competitors. This then implies that we may reasonably expect to observe *competition in innovation*, and thus many competing patents as well. This proposition, evidently being of high relevance for a modern, knowledge-based economy, is again in stark contrast to the orthodox economic views concerning what is called *patent races*, in which only the first patentee is the winner.

If we now assume that there is competition in innovation – and at least from the viewpoint of reality also a very reasonable conclusion – then we must make yet

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[23] SMITH, *supra* note 10, at 485.

another step in our analysis: we must postulate a new concept of incentive to invent. The assumed competition in innovation implies that we have to give away the classic assumption that patents are the means of creating monopolistic position; and this further implies that we need a new concept of incentive to invent – a concept, which would be compatible with such a changed view. Clearly, we need to abandon the idea that incentive to invent is linked to the expected monopoly profit *only*.

The natural question is, then, what could be an alternative, a completely different concept of incentive to invent? What could actually constitute an incentive to invent, if there is no promise of a suitable reward?

In order to answer the question, we have to recall the familiar story, briefly presented above, that monopoly profits of whatever origin, including those stemming from successful innovations, act as an incentive for new entrants to enter the market – provided, of course, that entry is free. If entry is blocked, then the monopolist can further maintain his monopolistic position; and again, economics traditionally assumes that patents do represent an entry barrier; patents *a priori* prevent new competitors to enter.

However, we have yet to say again and again that patents are not monopolies. If basic legal principles of patent protection are correctly interpreted in economic terms, then it is not difficult to show why patents are not monopolies. In brief, since scientific discoveries and laws of nature as such are *a priori* non-patentable, then there is usually always a possibility to invent and obtain a patent for a great number of inventions, which all solve the same technical problem, though each of them in a somehow different manner. All these competing inventions may be patented and subsequently embodied in competing products.

It follows that patents are not *a priori* an entry market barrier for all those competitors who do innovate by themselves. However, patents do present a market barrier only to the so-called free riders who, in absence of patent protection, could get a cost advantage against all those firms, which do innovate.[24] In this sense, patents actually defend a sort of a fair competition: any competitor willing and capable to innovate has access to the relevant market, but not those who would like to compete on the basis of copied innovations without their own innovative efforts.

In such circumstances, non-innovating firms can only continue to sell their current products; this, however, shall inevitably bring them into difficulties. Eventually, they shall have a hard time to compete with superior patented products, the consequence being that they shall run into negative profits, as economists like to say, what in plain language means losses. Of course, it is more than reasonable to predict that all such threatened competitors shall have an incentive to undertake whatever is necessary in order to avoid losses. Not surprisingly, perhaps the only action that could rescue them from losses is that they themselves innovate, which is possible in most cases. On this basis, an alternative and presumably more realistic concept to invent may actually be better labeled as a *pressure to innovate* – and this definition was applied in our competitive theory of patents.[25] The proposed defini-

[24] PRETNAR, *supra* note 5, at 895.
[25] *Id.,* at 893-894.

tion is *prima facie* a bold change: instead of a race for a monopoly profit, whether big or small, as postulated by the standard concept of incentive to invent, the basic underlying assumption is, at the limit, a battle for a bare survival in the market. However, a closer look reveals that the proposed *pressure to innovate* is actually a complementary extension of the profit-maximization incentive. Both incentives are not mutually excludable; together they just make a broader spectrum for incentives in innovation-based competition, which seems to be a convincing point in explaining the explosive growth of patent applications. Last but not least, the proposed *pressure to innovate* incentive obeys the fundamental maximization principle, though as its mirror side: instead of maximizing profits, the objective is to minimize losses. The minimization principle is symmetric to those involving maximization – again a familiar story from economics, for example, in the analysis of firms' costs.

4. Other Views on the Incentive to Invent

Economists do occasionally mention other forms of incentives that, at least in theory, may be preferred from social welfare point of view. Dominque Foray[26] offers an overview, presenting three institutional mechanisms for the provision of a public good such as knowledge in general and patentable inventions in particular. In addition to the patent system, which she is describing in a broader manner, as 'Market for knowledge … in which the stimulation of private initiatives is based on intellectual property rights which make it possible to grant temporary exclusive rights to new knowledge and innovation,'[27] she also presents two possible alternative systems for promoting technical progress. The first alternative mechanism is in a form of subsidies, by which the costs of producing knowledge are reimbursed from a public (or private) fund, and can be thus labeled as patronage. The second alternative is direct government production of relevant knowledge, labeled as procurement. As one could expect, none of the three mechanisms is ideal, as all display certain shortcomings:

'In the public (or private) patronage system, mechanisms of allocating research grants to individuals and teams rarely defy hysteresis effects (reputation increases the probability of receiving a new grant which, in turn, has the effect of increasing reputation even more); this diminishes the system's capacity to identify and maintain the "best" researchers'.[28] On the other hand, the procurement system is inherently plagued by the so-called asymmetry of information; moreover, it essentially means that 'the state replaces the market to select the "best"'.[29] And the main shortcoming of the private property system is, not surprisingly, that…'intellectual property rights determine monopoly prices that create distortions in the market.'[30]

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[26] FORAY, The Economics of Knowledge 113-129 (2004).
[27] *Id.,* at 119.
[28] *Id.,* at 121.
[29] *Id.*
[30] *Id.,* at 122.

This brief overview is interesting insofar as it correctly recognizes the shortcomings of the patronage and procurement mechanisms, but repeats the notorious misconception about the monopolistic nature of patents. In addition, the use of the notion of intellectual property in this respect is not a fortunate choice, as it implies that virtually all its categories – trademarks, copyright, designs, geographical indications, repression of unfair competition, trade names, etc. have a monopolistic character.

5. Concluding Remarks

The almost ubiquitous concept of incentive to invent has virtually escaped any detailed economic analysis, and has been consequently uncritically accepted. This is to some extent a surprising fact, as it is indeed hard to overlook the immense importance of incentive to invent; after all, it is this very incentive, whatever form it may, or ought to, take, which is putting the process of invention and innovation as the engine of technical progress into motion. Therefore, this contribution may be among very few attempts in exploring the concept of incentive to invent to some detail. Though modest in scope, the analysis has nonetheless revealed some certain semantic and methodological flaws in respect of traditional, and widely spread, notion of incentive to invent. While semantic flaws may possibly be neglected, this cannot be said for misconceptions as far as methodology is concerned. Since the concept of incentive to invent could hardly be separated from the underlying propositions about the economic impact of patents, it is also evident that all these flaws, regrettably, are reinforcing the persisting patent-equals-monopoly doctrine, which in itself simply does not hold – or at least does not hold anymore. In this respect, this contribution represents an urgent appeal to economists to significantly reconsider the prevailing theory of patents in general, and the traditional, monopoly-based concept of incentive to invent in particular.

The Patent Reform Act and Recent U.S. Supreme Court Decisions – A Correction of the Intellectual Property Policies?

Stanisław Sołtysiński

1. Foreword

While selecting a suitable topic for this Festschrift for Professor Joseph Straus, my distinguished colleague and friend, I have opted for a subject we have frequently discussed during numerous meetings at the Max Planck Institute and international conferences back in the 1970s. My first visits to the Institute occurred after my return from Columbia University, where I was studying the fundamentals of U.S. antitrust and intellectual property law. Having studied in the U.S. during the peak of the controversy between the patent and antitrust policies, I inherited a belief in a healthy balance between the needs of promoting innovations and competition. By contrast, Professor Straus has been always a firm believer in the overall benefits of strengthening intellectual property both in developed and developing countries.[1] He has been more skeptical than me of the virtues of vigorous enforcement of antitrust law.

During those early meetings we were fascinated by the interplay between the legislative and judicial branches of the U.S. Government in the process of shaping intellectual property laws. We shared the belief that legal developments in the U.S. would also shape intellectual property laws in Europe. The U.S. leadership has not changed in this field after so many years. When reviewing recent U.S. precedents, I have come across a now frequently discussed U.S. Supreme Court holding that a patent licensee need not repudiate his license before challenging a licensed patent in court by demanding a declaratory judgment that the patent is invalid, unenforceable or simply not infringed.[2] The pertinent case refers to the almost forgotten landmark decision in *Lear v. Adkins* which I discussed at length with Professor Straus more than 30 years ago.[3] Since then the application of the *Lear* rationale was considerably narrowed during the two last decades of the last century along the lines largely predicted by Professor Straus. Finally, I have given up the idea of writing a discreetly triumphant paper on the resurrection of the *Lear* legacy and the death of the

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[1] *See, e.g.,* STRAUS, The Impact Of The New World Order On Economic Development: The Role Of Intellectual Property Rights System, 6 J. Marshall Rev. Intell. Prop. 1 (2006).

[*] *MedImmune, Inc. v. Genentech, Inc.,* 549 U. S. ____ (2007)

[3] The patent license estoppel doctrine was successfully challenged in *Lear v. Adkins*, 395 U.S. 653 (1969). I published a review of this case in GRUR after presenting it for friendly criticism to Professor Straus and other colleagues from the Max Planck Institute. *See* SOŁTYSIŃSKI, Der Nichtangriffseinwand im amerikanischen Patentlizenzrecht – Lear v. Adkins und seine Folgen, 1974 Gewerblicher Rechtsschutz und Urheberrecht (GRUR) 387.

licensee's estoppel doctrine. Instead, as indicated in the title of this paper, I have decided to broaden the subject-matter, searching for clues of correction of some aspects of patent policies in the United States in recent years.

The following analysis will cover both case law, in particular recent Supreme Court precedents, and legislative proposals.

2. Legal Challenges to Patents

2.1 The Licensee's Estoppel Doctrine Revisited

Lear v. Adkins dealt with a dispute between an aviation company (Lear), which hired an engineer to create a better gyroscope, yet allowed him to retain all patentable inventions.[4] The parties entered first into a know-how license and subsequently, after Adkins filed a patent application, they concluded a new license contract, which was conditioned on the issuance of the patent for an already disclosed and licensed innovation conceived by the licensee. Since the licensor's patent application was rejected by the U.S. Patent & Trademark Office (USPTO) several times, the licensee was convinced that the patent would never be issued and ceased to pay the agreed royalties. Adkins finally obtained the grant and sued Lear shortly thereafter. The licensee defended his conduct by alleging that the issued patent was invalid. The argument was rejected by the California Supreme Court on the basis that the licensee was estopped from challenging the grant as a matter of state law.[5] California law, like other state laws and laws of many continental jurisdictions, forbid a buyer to repudiate his promises simply because he subsequently becomes dissatisfied with the contract he made with the seller. By contrast, the Supreme Court stressed that the U.S. federal law 'requires that all ideas in general circulation be dedicated to the common good, unless they are protected by a valid patent.'[6] The Court was not impressed by Adkin's argument that the licensee obtained benefits from the licensor before the patent was finally granted for an already disclosed innovation. The Supreme Court explained its decision as follows:

> Surely the equities of the licensor do not weigh very heavily when they are balanced against the important public interest in permitting full and free competition in the use of ideas which are in reality a part of the public domain. Licensees may often be the only individuals with enough incentive to challenge the patentability of an investor's discovery. If they are muzzled the public domain may continually be required to pay tribute to would-be monopolists without need or justification … [T]he technical requirements of contract doctrine must give way before the demands of the public interest in the typical situation involving the negotiation of a license after a patent has issued.[7]

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4 *Lear v. Adkins,* at 655-657.

5 *Id*, at 660-661.

6 *Id.*, at 667-668. The Supreme Court cited with approval *Sears, Roebuck v. Stiffel Co.*, 376 U.S. 225, 230 (1964). The latter case ruled that only the federal legislator may grant exclusive rights in ideas. This proposition is known as the doctrine of federal preemption.

7 *Lear v. Adkins*, at 671.

Lear also held that a licensee is not required to pay royalties while challenging the licensed patent. Liability for such royalties is cut off when the licensee stops paying agreed royalties. *Lear* favors an early adjudication of patent validity.

Lear's rationale was extended to co-owners in *Lemelson v. Synergistics Research Corp*., where the court held that a co-owner of a patent is not estopped from contesting the validity of a grant for the purpose of escaping his liability to the other co-owner for the payment of royalties.[8] With the advent of the patent friendly policies in the 1980s, federal courts have refused to extend the *Lear* doctrine to other transfer of technology transactions and narrowed its scope of application in patent licenses. Thus, for instance, in *Hemstreet v. Spiegel, Inc.,* the Federal Circuit declined to extend *Lear* to allow a party to a settlement in a patent dispute approved by a federal court.[9] The Federal Circuit argued that a further patent dispute would be in conflict with the doctrine of *res judicata* and the federal policy of encouraging patent litigation settlements.

The *Lear* doctrine was not extended to trade secrets, know-how and trademark licenses. Likewise, it has not been applied to patent assignments. In *Kewanee Oil Co. v. Bicron Corp.*, the Supreme Court explained that there is no inherent conflict between federal patent laws and state trade secrets law and that the doctrine of federal preemption does not prevent enforceability of trade secrets licenses.[10] Five years later, the Supreme Court distinguished *Lear* from a license contract which was concluded when a patent application was pending and the contract expressly provided for a reduced royalty (from 5 to 2.5%) if the patent did not issue.[11] The Court addressed the difficult question of whether the pending patent application was misused by the licensor as an improper leverage in negotiating the license contract. It held that: 'It is clear that whatever role the pending application played in the negotiation of the 5% royalty, it played no part in the contract to pay the 2.5% royalty indefinitely.'[12]

The Federal Circuit, widely known for its pro-patent attitude, further limited the practical significance of *Lear* in its open critique presented in *Studiengesellschaft Kohle, M.B.H. v. Shell Oil Co*.[13] The Federal Circuit held that a 'licensee . . . cannot invoke the protection of the Lear doctrine until it (i) actually ceases payment of royalties, and (ii) provides notice to the licensor that the reason for ceasing payment of royalties is because it had deemed the relevant claims to be invalid.'[14]

During recent years, the Federal Circuit further strengthened its own version of the licensee estoppel doctrine, referring both to its state law rationales and newly created federal law arguments such as encouragement of patent litigation settlements, *res judicata,* and collateral estoppel. The latter doctrine was applied in *Flex-Foot, Inc. v. CRP, Inc.* where the Federal Circuit held contractual estoppel barred a

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[8] *Lemelson v. Synergistics Research Corp*., 669 F. Supp. 642 (S.D.N.Y. 1987).
[9] *Hemstreet v. Spiegel, Inc.,* 851 F.2d 348 (Fed. Cir. 1988).
[10] *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974).
[11] *Aronson v. Quick Point Pencil Co*., 440 U.S. 257 (1975).
[12] *Id.,* at 265.
[13] *Studiengesellschaft Kohle, M.B.H. v. Shell Oil Co.,* 112 F.3d 1561 (Fed. Cir. 1997).
[14] *Id.,* at 1568.

licensee from challenging a patent that had been litigated between the parties three times and when their settlement contained representations that the challenged patents were valid.[15] While the cases discussed above seem to be based on persuasive public policy considerations, which prevailed over the *Lear* holding, the most recent decisions of the Federal Circuit went too far. In the *Gen-Probe* case, the Federal Circuit overturned the district court's ruling that it could hear a patent challenge case and that the licensed patents were invalid and/or not infringed.[16] It held that the pertinent declaratory judgment action did not involve 'actual controversy' within the meaning of the Declaratory Judgment Act.[17] The Court held that a declaratory judgment action by a licensee shall meet the following test:

> There must be both (1) an explicit threat or other action by the patentee, which creates a reasonable apprehension on the declaratory judgment plaintiff that it will face an infringement suit, and (2) present activity which could constitute infringement or concrete steps taken with the intent to conduct such activity.[18]

Neither *Gen-Probe* nor *MedImmune* plaintiffs satisfied the foregoing test. They have not terminated their respective patent licenses and continued to perform their contractual obligations. No doubt, the new test of 'justiciable case or controversy' used by the Federal Circuit has undermined *Lear* by substantially blocking the licensee's chances to challenge a licensed patent by way of a declaratory judgment suit.[19] Commentators stressed that the Federal Circuit has applied Lear rationale 'with some apparent disdain', referring to it in 'tones that echo from a past era of skepticism over intellectual property principles.'[20]

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[15] *Flex-Foot, Inc. v. CRP, Inc*. 238 F.3d 1362 (Fed. Cir. 2001).

[16] *Gen-Probe Inc. v. Vysis, Inc*., 359 F.3d 1376 (Fed. Cir. 2004).

[17] 28 U.S. C.A. § 2201(a).

[18] *Gen-Probe Inc.* at 1379-1380.

[19] As one commentator rightly observed, 'the question remained after Gen-Probe whether the Federal Circuit's willingness to block licensee challenges to patent based on doctrines such as *res judicata*, collateral estoppel, and, … absence of justiciable case or controversy, were really just smoke screens for that court's desire to reinstate licensee estoppel in total or in part'. O'CONNOR, Using Stock Options to Minimize Patent Royalty Payment Risks After MedImmune v. Genentech, 3 N.Y.U.J.L. & Bus. 381 (2007).

[20] HOLLANDER, Challenging Patents Becomes Easier, 54 Federal Lawyer 18 (March/April 2007). The author referred to a quote in *Studiengesellschaft Kohle* at 1567.

2.2 Recent Intervention of the Supreme Court: Resurrection of the Lear Legacy?

2.2.1 MedImmune Case

Commentators agree that recent term of the U.S. Supreme Court was marked by an unusually keen interest in patent cases.[21] Some legal analysts characterized the intervention of the Supreme Court as a clash between the Court's skepticism toward intellectual property rights and the Federal Circuit's formalistic efforts to protect those rights against licensee's of declaratory action suits.[22] Other authors view the growing activism of the Supreme Court in this field as a necessary intervention aimed at correcting exaggerated pro-patent attitudes of the Federal Circuit case law which unduly 'muzzled' those who dare to challenge even 'junk' patents.[23]

To illustrate this new trend of judicial activism, I will first review the *MedImmune* case.[24]

MedImmune had entered into a license contract with Genentech (licensor). The contract covered an existing patent and its future innovations. Once a new patent was issued, the licensor sent a letter to its licensee alleging that a drug manufactured by MedImmune was covered by the new patent and, thus, the licensee had to pay royalties. MedImmune disagreed and alleged that the new patent was invalid. Moreover, the licensee informed Genentech that its drug was not covered by the pertinent patent. The licensee decided to pay royalties under protest, while concurrently filing an action for a declaratory relief. The action was dismissed by the District Court for lack of subject-matter jurisdiction because, under the Federal Circuit case law, a patent licensee in good standing could not establish a 'case or controversy' with regard to validity, enforceability, or scope of a challenged patent. Naturally, the Federal Circuit affirmed the District Court's decision arguing that in the case that a challenging licensee has decided to pay royalties, there is no 'reasonable apprehension' that the licensee would be sued for infringement.[25]

The Supreme Court held that contrary to respondents' assertion, the record established that the petitioner has raised and preserved the contract claim arguing that because of patent invalidity, unenforceability, and non-infringement, it owes the respondent no royalties. Rejecting the formalistic test of justiciability of declar-

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[21] *See*, for instance, HOLLANDER, *id.*; WEINGAERTNER/CARNAVAL, US Supreme Court Holds that Patent Licensee Need Not Repudiate License Before Challenging Licensed Patents in Court MedImmune Inc. v. Genentech Inc., 29 EIPR 278-286 (2007); CHU, Operation Restoration: How Can Patent Holders Protect Themselves From MedImmune?, 8 Duke L. & Tech. Rev. 1 (2007); NOONAN, Subject Matter Jurisdiction, Declaratory Judgment Actions, and Patent Challenges by Licensees: Everything the Federal Circuit Knows is Wrong, 19 Intell. Prop. & Tech. L.J. 10 (2007).

[22] CHU, *id.,* at 8.

[23] HOLLANDER, *supra* note 20, at 18-19.

[24] *See MedImmune*, 549 U. S. ____ (2007).

[25] The Federal Circuit affirmed relying, *inter alia,* on its own ruling in *Gen-Probe*. *See Gen-Probe*.

atory actions established by the Federal Circuit, the Supreme Court quoted with approval its earlier precedent:

> Basically, the question in each case is whether the facts alleged, under all the circumstances, show that there is a substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality to warrant the issuance of a declaratory judgement.[26]

The Supreme Court ruled that a challenging licensee, who questions the validity of a licensed patent is not required to terminate the contract and/or inform the licensor of the reasons for refusing to pay the royalties. Moreover, Justice Scalia, speaking for all the Court's members, except Justice Thomas who wrote a dissenting opinion, refused to give a very narrow reading to the *Lear* precedent. The majority ruled that the fact that royalties are paid does not make the dispute of a hypothetical or abstract character. While rejecting the proposition that the licensee may not challenge the patent without terminating the license contract, Justice Scalia wrote as follows:

> It can hardly be implied from the mere promise to pay royalties on patents 'which have neither expired nor been held invalid by a court or other body of competent jurisdiction from which no appeal has been or may be taken,' App. 399. Promising to pay royalties on patents that have not been held invalid does not amount to a promise not to seek a holding of their invalidity.[27]

The dissenting Justice argued that the license required the petitioner to pay royalties until a patent claim has been held invalid. Hence, he disagreed with the majority that the case involved a genuine contractual dispute. Consequently, in his opinion, *MedImmune* did not raise and preserve a contract claim. Justice Thomas distinguished Lear arguing that the licensee in that case had ceased making payments under the license contract, a fact that makes the inapposite here. In his closing remarks, the dissenting Justice concluded that:

> By holding that contractual obligations are sufficiently coercive to allow a party to bring a declaratory judgement action, the majority has given every patent licensee a cause of action and a free pass around Article III's requirements for challenging the validity of licensed patents.[28]

Finally, the case was reversed and remanded for proceedings consistent with the newly established judicial guidelines. It is clear from the above that earlier rumors about the demise or 'death' of the *Lear* legacy were premature. The majority of the Supreme Court not only applied the old precedent but expressed its skepticism vis-à-vis the narrow exception to the common law licensee estoppel rule advocated by the respondents.

The decision of the Supreme Court in *MedImmune* was both criticized and hailed. Critics share Justice Thomas' view, who observed that *Lear* dealt with a dif-

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[26] *MedImmune*, at 8 (citing *Maryland Casualty Co. v. Pacific Coal Co.*, 312 US 270, 273 (1941)).
[27] Id. at 16.
[28] *MedImmune Inc.*, at 10 (Thomas J, dissenting)

ferent case because Lear (the licensee) ceased making payments under the licensee agreement – 'a fact that makes singularly inapposite here [and] did not involve the Declaratory Judgment Act because the case was brought as a breach-of-contract action.'[29] Critics also argue that the precedent will encourage licensees to undo their contractual obligations by challenging licensed patent or to renegotiate the terms and conditions thereof.[30]

Critics of *MedImmune* also argue that the new precedent threatens to seriously upset the patent license business because it allows the licensee to obtain access to proprietary innovations on 'credit' and then challenge the underlying patent once he successfully commercializes licensed products. Some commentators predicted increased patent litigations, higher levels of royalties and proliferation of defensive contractual measures such as automatic termination of license contracts in the case of *MedImmune* style challenges, imposing all costs of litigation on the licensee, etc. But even critics of the new precedent agree that the Federal Circuit went too far in establishing formalistic barriers protecting 'malicious, fraudulent, or extortive would be licensors.'[31]

Authors praising Justice Robert's Court intervention in the intellectual property domain emphasize the importance of the *Lear* legacy and its pragmatic assumption that licensees may often be the only individuals with enough incentive to challenge bad patents and that if they are 'muzzled', the public would be required to 'pay tribute to would-be monopolists without need or justification.'[32] Criticism of the Federal Circuit case law, which created almost total bars for challenging sham patents, is widespread. Characteristically, the United States Government supported the petitioner before the Supreme Court, arguing that '[c]onsiderations of patent policy … could not justify creation of a patent-specific test that is more rigorous than the constitutional and statutory standards that determine the existence of a justiciable case or controversy in all other contexts.'[33] The warnings and alarming forecasts of abusive patent litigations have not become 'flesh.' So far, the number of declaratory judgment suits actions by licensees has not increased.[34] The cost, time and other inherent risks of a protracted litigation speak against initiating frivolous actions.

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[29] *MedImmune Inc.*, at 9 FN2 (Thomas J, dissenting).

[30] DOLAK, Power or Prudence: Toward a Better Standard For Evaluating Patent Litigants' Access to the Declaratory Judgment Remedy, 407. *See* also SCHLICHTER, Patent Licensing What to Do After MedImmune v. Genetech, 89 J. Pat. & Tm Off. Soc. 364, 373-375 (2007).

[31] O'CONNOR, *supra* note 19, at 381 *et seq.*

[32] HOLLANDER, *supra* note 20, at 18.

[33] Brief for the United States as Amicus Curiae Supporting Petitioner at 23, MedImmune, Inc. v. Genetech, Inc., WL 1327303, U.S. May 15, 2006, No. 05-608 (2006).

[34] LANDRA, EWING, Declaratory Judgment Practices After Sandisk v. Stmicroelectronics, 23 Santa Clara Computer & High Tech L.J. 185, 200 (2007).

2.2.2 EBAY Inc. et al. v. MercExchange, L.L.C.: The Issue of Permanent Injunctions in Patent Case

The *eBay* decision dealt with the statutory requirements of permanent injunction in patent infringement disputes. Petitioners eBay Inc. and Half.com Inc. operated a popular Internet Website that allows sellers to offer goods either by way of an auction or at a fixed price. Respondent MercExchange, held numerous patents, including a business method patent designed to facilitate the sale of goods between private individuals by establishing a central authority to promote trust among parties to such transactions. Respondent was trying to license its patent to the petitioners but the parties failed to conclude a contract.

Subsequently, MercExchange filed a patent infringement suit against eBay and its subsidiary Half.com. A jury found a patent infringement and awarded damages to the plaintiff, but the district court denied the plaintiff's motion for permanent injunction.[35] It applied the traditional four-factor test which require that a plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that the remedies available at law (e.g., damages or accounting for profits) are inadequate to compensate the injury suffered; (3) that considering the balance of respective hardships between the plaintiff and the defendant awarding an additional remedy in equity is justified under given circumstances; and (4) that granting permanent injunction would not be in conflict with the public interest.[36] The plaintiff appealed and the Court of Appeals for the Federal Circuit reversed. It applied its self-made 'general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances.'[37]

The Supreme Court granted *certiorari* and, subsequently, held that the traditional four-factor test applied by courts of equity applies also to disputes arising under the Patent Act.[38] The majority held that the Court of Appeals departed from the four-factor test and the letter of the Patent Act which 'expressly provides that injunctions "may" issue "in accordance with the principles of equity." 35 U.S.C. § 283.'[39]

Delivering the opinion of the Court, Justice Thomas stressed that patents have the attributes of personal property. Treating patents like intangibles protected under the Copyright Act and all other forms of personal property speaks against departing from well established rules of equity and granting patent owners a unique status.[40]

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[35] At the time of proceedings before the Supreme Court, the petitioners continued to challenge the validity of Merc Exchange's patent before the United States Patent and Trademark Office. *Ebay Inc. et al. v. MercExchange, L.L.C.,* 547 U.S. 366 (2006), slip opinion at 2. All citations in this paper refer to the Supreme Court's slip opinions.

[36] *See Amoco Production Co. v. Gambell*, 480 U.S. 531, 542 (1987).

[37] *MercExchange L.L.C. v. Ebay Inc. and Half.com,* 401 F 3d 1323, 1339 (Fed. Cir. 2005).

[38] *Ebay Inc. et al. v. MercExchange, L.L.C.*, 547 U.S. ___(2006).

[39] *Id.*, at 3.

[40] *Id.*, at 5. The opinion stresses that the Court 'has consistently rejected invitations to replace traditional equitable considerations with a rule that an injunction automatically follows a determination that a copyright has been infringed.' *See*, *e.g.*, *New York Times Co. v. Tasini*, 533 U.S. 483, 505 (2001).

However, the majority opinion also rejected the less patent-friendly interpretation of the four-factor test, stressing that such patent owners like universities which prefer licensing patents than exploiting their innovations on their own through product development should not be categorically denied the remedy of permanent injunction.[41]

The concurring opinions of seven remaining Justices conveyed an even more critical assessment of the Court of Appeal approach and published abuses of some licensing practices. Chief Justice Roberts, with whom Justice Scalia and Justice Ginsburg joined, emphasized that permanent injunctions should not be almost automatically granted in patent cases and that equitable discretion 'is not whim, and limiting discretion according to legal standards helps promote the basic principle of justice that like cases should be decided alike.'[42]

A concurring opinion of Justice Kennedy, with whom Justice Stevens, Justice Souter and Justice Breyer joined, explain more clearly the socio-economic reasons of the recent Supreme Court intervention in the patent cases. They articulated that 'an industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees . . . . For these firms, an injunction . . . can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent.'[43] Furthermore, the concurring opinion observes that 'when the patented invention is but a small component of the product that other companies seek to produce the threat of permanent injunction is employed as an undue leverage in negotiations, legal damages may well be sufficient . . . and an injunction may not serve the public interest.'[44] The opinion also refers with disdain to the 'burgeoning number of patents' over business methods which are of 'suspect validity.'

Some commentators opine that as a result of the eBay precedent, the patentees have lost one of the most powerful remedies they had against infringers. Although this is a good result, it is criticized by some commentators. There is no doubt, however, that the district courts now have greater flexibility to decide whether to issue injunctions which merit such draconian sanctions.

2.2.3 KSR International Co. v. Teleflex Inc. et al.:[45] Correction of the Concept of 'Obviousness' in Patent Litigation Disputes.

The dispute which prompted the Supreme Court to grant a *certiorari* in the abovementioned case involved an alleged patent infringement. Teleflex Inc. and its subsidiary sued KSR International for infringement of a U.S. patent entitled 'Adjustable Pedal Assembly with Electronic Throttle Control.' Teleflex held the exclusive license to that patent which is owned by one Engelgau. KSR (the petitioner) alleged that claim 4 of the pertinent patent was invalid because its subject matter was obvi-

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[41] *Ebay v. MercExchange,* at 4.
[42] *Id.,* at 2 (Roberts, C.J., concurring).
[43] *Ebay v. MercExchange,* at 2 (Kennedy J, concurring).
[44] *Id.* (Kennedy J, concurring).
[45] *KSR Int'l Co. v. Teleflex, Inc..et al*, 550 U.S.___(2007).

ous under the Patent Act which forbids issuance of a grant when the claimed innovation 'would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.'[46]

Relying on the expert testimony and the parties' stipulations that the level of ordinary skill in pedal design was an undergraduate degree in mechanical engineering and familiarity with pedal control systems for vehicles, the District Court compared the prior art in the relevant field to the claims in the Engelgau patent. It found that earlier patents disclosed essential features of claim 4 of the Engelgau invention. Following earlier precedents dealing with combinations of familiar elements of the state of the art, the District Court ruled that the Engelgau patent was obvious because it found 'little difference' between the prior art and the claims of the Engelgau patent.[47] It stressed that an earlier patent application by Asano, which was rejected by the Patent Office, contained all elements of the Engelgau claim 4, except a sensor to detect the pedal's position and transmit it to the computer which controlled the throttle.[48] However, that additional feature was revealed in sensors used by Chevrolet. The District Court concluded that the patent claim in dispute constituted a combination of known technical solutions and granted a summary judgment for KSR.

On appeal, the District Court decision was reversed.[49] The Court of Appeal argued that the District Court failed to apply the so-called 'teaching, suggestion, or motivation test' ('TSM') under which a patent claim may only be viewed as obvious if the prior art, the problem's nature, or the knowledge of a person having ordinary skill in the art reveals motivation or suggestion to combine the prior art teachings.[50] In other words, the TSM test orders the judge to answer the question of whether there is a teaching suggestion or motivation in the prior art (e.g. in patent specifications technical literature) indicating that it is possible to combine known solutions.

The Supreme Court characterized the Court of Appeals approach and its TSM test as a rigid formula inconsistent with the teachings of Graham and other precedents.[51] The opinion quoted with approval a dictum that a 'patent for a combination which only unites old elements with no change in their respective functions … obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skilful men.'[52] While agreeing that the TSM test contains suggestions which may be helpful to solve some patent disputes, it held that it offers too narrow a concept of the obviousness inquiry. In the opinion of the Supreme Court, 'the relevant question is not whether the combination was obvious

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[46] 35 U.S.C. § 103.

[47] *E.g., Graham v. John Deere of Kansas City*, 383 U.S. 1 (1966) and *United States v. Adams*, 383 U.S. 39 (1966).

[48] *KSR Int. Co. v. Teleflex Inc.,* 298 F. Supp. 2d 581, 590 (E.D.Mich. 2003).

[49] *KSR Int. Co. v. Teleflex Inc.,* 119 Fed. Appx. 282, 288 (Fed. Cir. 2005).

[50] *Id.* at 288-289.

[51] *KSR Int'l v. Teleflex*, 550 U.S.___(2007), at 11 *et seq.*

[52] *Id.* at 12. (citing *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp*., 340 U.S. 147, 12 (1950)).

to the patentee but whether the combination was obvious to a person with ordinary skill in the art.'[53] The Court agreed with the District Court's conclusion that the subject matter of the disputed patent claim was obvious to a person skilled in the art to combine the Asano invention with a pivot-mounted pedal position sensor. As a result, the judgment of the Federal Circuit was reversed, and the case was remanded for further proceedings consistent with the opinion.

The relevance of the foregoing precedent is twofold: first, it prevented the 'codification' of the Federal Circuit's test of TSM as the exclusive formula of ascertaining obviousness; second, it has prevented lowering the standard of 'patentable invention' and proliferation of dubious patents. In the opinion of the Supreme Court: '[T]he results of ordinary innovations are not the subject of exclusive rights under the patent laws. Were it otherwise, patents might stifle rather that promote the progress of useful arts. *See* U.S. Constitution, Art. I § 8, cl. 8.'[54]

2.2.4 Other Important Cases

On January 16, 2007, the Supreme Court vacated and remanded to the Court of Appeals yet another case challenging the 'reasonable apprehension' test 'invented' by the Federal Circuit.[55] Like the earlier twin *MedImmune* case,[56] the petitioner was a paying licensee[57] which disputed the validity of the patent and indicated that it did not infringe the disputed grant. The Court of Appeal had applied the *Gen-Probe* rationale and ruled that no controversy existed as long as the sublicense was paying royalties. The Federal Circuit Court noted that a challenger of the patent must decide whether to settle or fight.

The Supreme Court vacated and remanded the case, ordering the Federal Circuit to apply the teaching of the earlier *MedImmune* case.

The flexible Supreme Court test of 'controversy' for the purpose of satisfying the requirement of jurisdiction in declaratory suits was applied by the Federal Court in *San Disk*.[58] It held that

> [w]here a patentee asserts rights under a patent based on certain identified ongoing or planned activity of another party, and where that party contends that it has the right to engage in the accused activity without license, an Article III case or controversy will arise and the party need not risk a suit or infringement by engaging in the identified activity before a declaration of its legal rights.[59]

It is worth mentioning that the parties to the dispute were not bound by a license or any other contract. The controversy arose after they failed to enter into a cross-licensing agreement.

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[53] *KSR Int'l v. Teleflex,* at 16.
[54] *Id.,* at 24.
[55] *MedImmune, Inc. v. Centocor, Inc.*, 127 S.Ct. 1118 (2007).
[56] *Id.*
[57] Actually it was a dispute between a licensee and its sub-licensee. *See MedImmune, Inc. v. Centocor, Inc.*, 409 F. 3d 1376 (Fed. Cir. 2005).
[58] *San Disk Corp. v. Stmicroelectronics Inc.,* 480 F. 3d at 1381 et seq.
[59] *San Disk Corp., id.* at 1381.

In *Quanta Computer v. LG Electronics,*[60] the Supreme Court agreed to grant *certiorari* to a party questioning whether a patent owner can demand royalty fees for more than one company in the supply chain that uses a patented product. The petitioner (LG Electronics) granted to Intel the right to make and sell a patented chip. The limited license allowed the licensee to combine the licensed chip with other Licensee products. Quanta acquired the Chips from Intel and combined it with non-Intel made products. LG sued Quanta for patent infringement damages.

The District Court accepted the defense argument applying the exhaustion rationale which constitutes a corollary of the first sale doctrine. The court of first instance ruled that the case involved an exhausting sale once Intel sold its licensed chips. The Federal Circuit reversed. The case is now pending before the Supreme Court. Justice Robert's Court will revisit and explain the old and almost forgotten doctrine of patent exhaustion.

Another interesting Supreme Court case involved a dispute between industry giants Microsoft and AT&T.[61] AT&T owned the U.S. patent for a type of software code included in Microsoft's Windows System. When Microsoft sent master versions of the software abroad, copied them and sold such copied programs, AT&T sued for patent infringement in the U.S. The District Court ruled for the plaintiff. It held that Microsoft infringed the U.S. patent by exporting components of a patented invention, actively inducing the combination thereof. Microsoft appealed, arguing that (1) software code is intangible and cannot be considered a component of an invention and (2) no software was 'supplied' from the U.S. because copies embodying the inventions were made abroad. The Federal Circuit rejected Microsoft arguments and affirmed the decision of the District Court.

The Supreme Court granted *certiorari* and ruled 7-1 that software code is an idea without physical embodiment. The majority opinion held that software code resembles a blueprint which precisely describes the combination but it is not a 'component' under the Patent Act. While admitting that the copying from the master version of the code was easy, it was nonetheless an essential step to make the final product. Since each functional copy was produced abroad, the Court held that there was no patent infringement. The dissenting Justice Stevens compared the exported disc to a 'warehouse component.'

These and other cases illustrate the clash of legal philosophies displayed by conflicting approaches of the Federal Circuit Court and the Supreme Court. Basically, the Supreme Court's intervention seems to be justified and timely. Acting as the guardians of the Constitution, the Justices 'resurrected' some of its earlier precedents decided back in the 1960s, thus correcting the case law of the Federal Circuit, a court of appeal having exclusive appellate jurisdiction in patent disputes.[62]

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[60] *Quanta Computer v. LG Electronics*, 453 F. 3d 1364 (Fed. Cir. 2006), *cert. granted*, 128 S. Ct. 28 (2007).

[61] *Microsoft Corp. v. AT&T*, 550 U.S.___(2006).

[62] It is also interesting to note that the criticism of the formalistic approach of the Federal Circuit by the Justices is sometimes quite harsh. Thus, for instance, during presentation of oral arguments in the *KSR* case, Justice Scalia described the Federal Circuit's 'TSM doctrine' as 'gobbledygook'. Transcript of Oral Arguments at 41, *KSR v. Teleflex*, 550 U. S. ____ (2007).

3. Patent Reform Act 2007

3.1 The Reasons for the Reform

Over the last decade, the enactment of patent reform in the United States was prompted by several factors. During this term of Congress, despite the diverging interests of various groups advocating the reform, bipartisan coalitions have been forged in the House of Representatives and the Senate which led to the passage of the Patent Reform Act of 2007. On September 7, 2007, the House passed the Bill by a vote of 220-175.[63]

The two bills broadly encompass key proposals recommended by the Federal Trade Commission[64] and a 2004 report by the National Academy of Sciences.[65] The title of the FTC Report aptly emphasizes that the main goal of the reform consists in striking a healthy balance between competition and patent policies.

The NAS Report stresses the historic U.S. role as the leading advocate of strong patent laws. However, it also contained several recommendations aimed at (1) reinvigorating the non-obviousness standard with particular attention paid to business method and gene sequence related inventions; (2) instituting a post-grant open review procedure, (3) shielding some forms of R&D activities from patent infringement liability; and (4) limiting and clarifying the subjective concepts of patent litigation such as willful infringement and enhanced damages, best mode and the inequitable conduct defense.

As far as the procedure of granting patents is concerned, experts have advocated for decades a proposal to switch from the traditional 'first-to-invent' to the universally accepted - except for the United States – 'first-to-file system.' The adoption of the latter solution was recommended already in 1966 in the Report of the President's Commission on the Patent System.[66] It is worth mentioning that the NAS Report strongly advocated harmonization of the U.S. patent examination procedures with those of the E.U. and Japanese examination systems, including early publishing of patent applications, and exploring common approaches to search and examination among leading patent granting authorities.[67]

Concerns about the current substantive and procedural rules in the field of patents have been also raised by coalitions of practitioners, owners, and users of technology. The patent-friendly Federal Circuit has been frequently criticized for grant-

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[63] The Patent Reform Act of 2007, House of Representatives 1908. Democratic Congressman Howard Berman introduced the Bill on 18 April, 2007. A similar Bill was introduced in the Senate by Democratic Senator Patrick Leahy on the same day, S. 1145.

[64] To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy. A Report by the Federal Trade Commission (2003), (here-and-after 'FTC Report'), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (as of April 2008).

[65] MERRILL/LEVIN/MYERS (eds.), A Patent System for the 21st Century, (here-and-after 'NAS Report').

[66] PRESIDENT'S COMMISSION ON THE PATENT SYSTEM, To Promote the Progress of Science and Useful Arts in an Age of Exploding Technology (1966).

[67] *See* further, MOSSINGHOFF/KUNIN, The Need for Consensus in Patent Reform, BNA's Patent, Trademark & Copyright Law Daily, January 31, 2008, at 5.

ing 'automatically' permanent injunctions and 'runway damages awards.' The phenomenon of 'patent trolls' (i.e. owners) aggressively enforcing their patent rights, which are frequently of dubious validity, is subject to criticism due to the high socio-economic costs of patent litigation. One of the most notable of such costly disputes was a litigation initiated by NTP, the owner of e-mail patents, against RIM. After years of litigation, the dispute ended by way of a settlement largely due to a combination of effective judicial warnings and the Government's intervention.[68] At one point, the dispute led to a danger of the use of the widely used BlackBerry devices being stopped if the District Court granted an injunction. The injunction was not issued largely because of two interventions of the U.S. Government opposing such measure. On February 9, 2006, the U.S. Department of Defense filed a brief stating that an injunction shutting down the Blackberry service while excluding Government users would be unworkable and that the equipment was crucial for national security. Although some NTP patents were held invalid, the litigation regarding validity of other grants have been continued despite thousands of pages of documents submitted by the parties and many expert opinions.[69]

Proponents of a reform of the current rules governing patent infringement damages advocate their apportionment and making multiple damages resulting from willful infringement more difficult to prove. A recent example of dubious mega-damages is illustrated by a jury award amounting to USD 1.52 billion granted to Alcatel-Lucent in its patent dispute with Microsoft.[70] The judge agreed with Microsoft that the jury's decision was not supported by evidence but Alcatel-Lucent has announced that it would appeal the judge's order.[71]

Several proponents of the reform advocate limiting forum shopping practices by introducing special patent litigation rules aimed at curbing liberal forum selection rules which permit plaintiffs to bring suits in well known pro-patent fora which lack any connection to any party. Such litigation strategies are not only unfair to defendants but materially increase the cost of litigation. Recent studies show that the creation of the Federal Circuit, which resulted in concentrating the appeal cases in one pro-patent court, did not diminish forum shopping at the trial court level. To the contrary, a recent empirical study demonstrates that patent litigation in the U.S. is now more concentrated than in the late 1990s.[72] According to this study, the top ten districts now account for about half of the whole caseload, while the top five judi-

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[68] *See*, NTP/RIM settlement, Press Release available at < http://www.rim.com/news/press/2006/pr-03_03_2006-01.shtml> (as of April 2008).

[69] The following title of a comment on the NTP saga illustrates the criticism of the patent litigation process: MCKENNA/WALDIE/AVERY, Patently Absurd: The Inside story of RIM's Wireless War, Globe and Mail, February 21, 2006.

[70] *Alcatel-Lucent v. Microsoft*, *see* LAWSON, Big Win for Microsoft in Alcatel-Lucent Patent Case, available at <http://www.pcworld.com/printable/article/id,135598/printable.html> (as of April 2008).

[71] *Id.*

[72] LEYCHIKS, Of Fire Ants and Clair Construction: An Empirical Study of the Meteoric Rise of the Eastern District of Texas as a Preeminent Forum for Patent Litigation, 9 Yale J. Law & Technology 193 *et seq*. (2006).

cial districts carry 36% of all patent disputes. Of course, the popularity of top judicial fora among plaintiffs is largely a function of statistics indicating the percentage of patentee wins, the pace of adjudication, district's judges experience in patent matters, the likelihood of getting to a jury trial, chances of selection of patent-friendly juries, etc. . Defendants prefer venues with urban, tech-savvy juries, slower adjudication and judges displaying pro-competition bias.[73] However, since the selection of forum is mainly in the hands of the plaintiff, the defendant frequently faces a pro-patent venue both at the district and court of appeal levels.

3.2 The Main Changes Incorporated in the House Bill (H.R. 1908)

3.2.1 Introduction of the First-to-file System

As expected, the House Bill passed on September 7, 2007 replaced the 'first inventor' principle with the 'first-to-file' concept and substituted the current 'interference' procedure with new 'derivation' proceedings to determine which applicant is the inventor when several applicants have claimed to be first inventors.

Parties to a derivation proceeding may submit their dispute to arbitration.

The Bill would not take effect until 90 days after the President advises the Congress that major foreign patenting authorities have adopted a one-year 'grace period' allowing an inventor to file for a patent after invention is first disclosed in a public forum.

3.2.2 Modification of the Damages Formula for Patent Infringement

The Bill contains guidelines providing for alternative methodologies which should be applied by judges to calculate 'reasonable royalty' damages. They involve the following directives:

> a) If there is a showing that the claimed invention's specific contribution over the prior art is the predominant basis for market demand of the infringing product or process, the royalty base may be the entire market value of the infringing product or process.
>
> b) If there is a showing that the claimed invention has been subject to non-exclusive licenses in similar circumstances, the royalty may be determined based on such licenses.
>
> c) If neither (a) nor (b) applies, the court shall ensure that the reasonable royalty includes the patentee's contribution 'only to the portion of the economic value of the infringing product or process properly attributable to the claimed invention's specific contribution over the prior art.'

Additionally, the court may also consider other relevant factors.

Opponents of these legislative guidelines expressed fears that the proposed modifications would represent a dramatic departure from the market-based principles. They allege that it would result in unpredictable and artificially low damages.[74]

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[73] *Cf.* MOSSINGHOFF/KUNIN, *supra* note 67, at 23.

[74] The opponents include, *inter alia*, the Department of Commerce, Judge P. Michel, the Chief Judge of the Federal Circuit Court, the Biotechnology Industry Organization, and the Coalition for 21st Century Patent Reform.

More moderate critics are of the opinion that courts can 'somehow' fix the practice of inflated jury awards.[75] The criticism seems to be exaggerated. The proposed guidelines offer basically reasonable standards. The need for dealing with inflated, sometimes exorbitant awards, was well documented by their proponents.[76] Characteristically, Chief Judge P. Michel has criticized the reform Bill as allegedly creating 'insurmountable transaction inefficiencies,'[77] while forgetting about inefficiencies resulting from his Federal District Court's decisions allowing owners of dubious patents to defend challenges that their exclusive rights are 'obvious.' Many such challenges were rejected by courts because the Federal Circuit case law introduced formalistic barriers estopping licensees from challenging validity of patents.[78]

Indeed, the passage of the discussed portion of the Bill could lead to more litigation regarding existing patent licenses which were negotiated under the old less specific guidelines. However, if the equities of the old licenses speak in favor of not subjecting them to the new rules, Congress might introduce specific transition provisions providing that the apportionment of damages rules shall apply only to new transfer of technology transactions concluded after the entry into force the new Act.

3.2.3 Limits of Treble Damages

The Bill proposes to limit patentee's right to treble damages to situations where (1) the alleged infringer had written notice of patent and infringement allegations; (2) intentional copying or (3) continued conduct after finding of such infringement.

More importantly, 'willfulness' shall be determined by a judge, not a jury, and may not be pleaded or tried before establishing the defendant's liability. Some of these proposals are rightly criticized by reference to the practice of 'a cottage industry of lawyers providing such opinions at a cost ranging from USD 10,000 to USD 100,000 per opinion.'[79] Some critics of the Bill argue that the problem has been effectively solved by the judiciary *In Re Seagate Technology*.[80] The Court ruled that an accused infringer's failure to obtain legal advice 'does not give rise to an adverse inference with respect to willfulness.'[81] Trying to establish a more objective test of willfulness, the Federal Circuit stated that enhanced damages require at least a showing of 'objective recklessness.'[82]

While the abandonment of the affirmative obligation to obtain a legal counsel opinion was a step in the right direction, equalizing 'recklessness' with 'willfulness' constitutes yet another example of the Federal Circuit's generous judicial law-

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[75] *Cf.* MOSSINGHOFF/KUNIN, *supra* note 67, at 21-23.
[76] Advocates of these changes include, *inter alia*, the Coalition for Patent Fairness, the American Bankers Association, the Financial Services Roundtable, and ADAPSO.
[77] *Cf.* MOSSINGHOFF/KUNIN, *supra* note 67, at 19.
[78] *See* Sec. 1.2 – 1.2.3 of this article.
[79] A remark in the NAS Report quoted with approval MOSSINGHOFF/KUNIN, *supra* note 67 at 28.
[80] *In re Seagate*, 497 F. 3d 1360, 1370-1371.
[81] *Id.*, at 1346.
[82] *Id.*, at 1371.

making favoring the patentee.[83] Besides, the legislative proposal incorporated in the Bill to leave the decision about 'willfulness' to judges seems to be fully justified.

3.2.4 Venue and Jurisdiction

Similar to the Senate version, the Bill limits choice of venues where infringement suits and declaratory judgment actions may be filed with three jurisdictions having substantial contact with the parties and/or the dispute:

> a) where the plaintiff has a place of business that is engaged in (A) R&D activities, (B) manufacturing operations, or (C) management of R&D or manufacturing activities related to a disputed patent;
>
> b) where the plaintiff resides, if the plaintiff is an individual;
>
> c) where any of the defendants has substantial contact and witnesses, if there is no other district in which the action may be brought under this section.

While the intended limitations of forum shopping practices is to be hailed, the Senate version of the Bill is more convincing as it offers a choice among defendant's and plaintiff's principal place of business and the place where the infringement took place. The House Bill unduly restricts the possibility of selecting the defendant's home venue.

3.2.5 Other Important Changes

Other modifications of the current U.S. patent law embrace important substantive and procedural aspects. The latter involve, *inter alia,* early publications of patent applications allowing third parties to submit documents relevant to the examination of patent applications, post-grant reviews aimed at cancelling 'bad' patents, and allowing an investor's assignee to file a patent application.

Substantive changes, in addition to those discussed above, include a new definition of 'inventor,' expanding 'prior-user defense,' modifying the 'inequitable conduct defense' by requiring to prove by 'clear and convincing evidence' that a person with a duty disclosure to the USPTO misrepresented or failed to disclose material information with the intent to mislead or deceive the Office, and banning tax planning patents.

The chances of the Bill being passed in the Senate are by no means assured. Although the reform is sponsored by members of the two parties, the majority of the Republican members of Congress are either opposed to or are not enthusiastic supporters of the Bill. The industry seems to be deeply divided.

4. Concluding Remarks

The foregoing review of recent judicial precedents and legislative proposals aimed at reforming the U.S. patent system show a subtle correction of the pendulum. Dur-

[83] It seems to be a hornbook proposition that an act or omission is 'willfully' done, if done voluntarily and intentionally, as distinguished from an act done carelessly and even recklessly.

ing the last two decades of the last century, both the Government administration and judges appointed during the Reagan administration favored strengthening patent laws, while limiting the scope of application of pro-competition policies. The establishment of the Court of Appeals for the Federal Circuit has led to a further strengthening of patent owners and licensors. By the end of the last century, the battle between the pro-patent and pro-competition camps was largely won by the disciples of the Chicago school.

But recent developments demonstrate that legislative and judicial 'bounties' granted to patent owners have imposed a heavy cost on the U.S. economy. Quite a few representatives of the U.S. industry testified that the 'patent litigation system was broken' and 'the patent litigation rules themselves are now a means of enhancing patent value, instead of a neutral system for resolving disputes.'[84] This sober observation is best illustrated by the fact that a patentee may select the most-friendly trial forum and then await the final decision in Chief Judge Paul Michel's Federal Circuit Court of Appeal, where until very recently it was more than difficult to challenge bad patents by way of declaratory judgment suits.[85] By contrast, permanent injunctions were almost automatically granted and affirmed on appeal. The growing criticism of the patent litigation system has not been overlooked by the Supreme Court. 'Generalist' Justices have overruled several precedents of the Federal Circuit Court.[86] It is also interesting to note that both the Justice Robert's Court and proponents of moderate legislative changes stress the topicality of the Court's precedents established in the 60s and 70s, as well as recommendations of economists made during that period.[87]

It remains to be seen whether the U.S. patent system will be fixed mainly by its judiciary and whether the legislative reform will be limited to the adoption of the first-to-file system and procedural aspects of handling patent applications or whether it will also involve more substantive changes aimed at establishing an equal playing ground between parties to patent disputes. But even if the legislative reform does not embrace the more difficult and controversial proposals of the House Bill, we Europeans can learn a lot from the recent decisions of the U.S. Supreme Court and the arguments advanced in Congress both by the proponents and opponents of the Bill.

On April 10, just before the final debates on the Senate floor, a breakdown occurred in the Judiciary Committee over the proposed damages apportionment provision. One of the bill's supporters Senator A. Specter pulled his support. His

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[84] Testimony of M. Handler, Cisco Systems Inc., Hearing, Committee on the Judiciary, U.S. Senate, May 23, 2006, at 4.

[85] *E.g.* in Eastern District of Texas.

[86] Judge Michael expressed his fears that 'generalistic judges' lack experience and expertise to make complex economic valuations to comply with the statutory apportionment of damages proposed in the Bill. *See* his letter to senators Leahy and Hatch of May 3, 2007 available at <http://www.patentbaristas.com/wp/wp-content/uploads/2007/05/michellettermay3rd.pdf> (as of April 2008). Presumably, the Chief Judge prefers the current system of awarding damages by jury.

[87] *See* the text accompanying notes 7, 11, 28-29, 48, 53 and 67.

disagreement with Senator P. Leahy, the Chairman of the Committee, reflects the conflict between the Coalition on Patent Fairness, which represents telecommunications, energy, banking, retail, computer, software and other high-tech industries, on the one hand, and a rainbow coalition of opponents of the bill led by biotechnology, pharmaceutical and chemical sectors supported by the US steel workers, on the other hand. A compromise in the Fall is rather unlikely given the presidential election, so that the legislative process will probably have to restart again in 2009. Several commentators express hopes that the task of reforming the patent system remains in the hands of the U.S. courts.[88]

[88] WAGNER, The Supreme Court and the Future of Patent System, 55 Federal Lawyer, No. 2 (2008) at 35.

The Impact of the Amendments of the Chinese Patent System on the Technological and Economic Progress in China*

Xiang Yu

1. Introduction

The Chinese Patent Act was enacted on March 12, 1984 and entered into force on April 1, 1985. The first revision was enacted on September 4, 1992 and entered into force on January 1, 1993. The second revision was enacted on August 25, 2000 and implemented on July 1, 2001.[1] The Chinese Patent Act is undergoing revision for the third time, which is anticipated to be finished in 2008.[2]

Up to December 24, 2007, patent applications received by the State Intellectual Property Office of the People's Republic of China (hereinafter "SIPO") climbed onto the plateau of 4 millions. Statistics showed that patent applications received by SIPO reached 1 million after 15 years (1985-2000) of the implementation of the Chinese Patent Act. Then, it took 4 years and 2 months to receive the 2nd million of patent applications, 2 years and 3 months for the 3rd million. The 4th million of applications were filed in merely 18 months.[3] The data of total applications to SIPO and total grants by SIPO are showed respectively in the following Form 1 and Form 2.

Among the 1st, 2nd and 3rd million of applications, Chinese applicants filed 47.8%, 50.7% and 53.4% of applications for invention. Among the 4th million 60.8% of patent applications for invention were filed by the Chinese applicants. Furthermore, among the 4th million of applications, 68.9% of patent applications for invention filed by the Chinese applicants were service applications (employee inventions).

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* This research was supported by the National Natural Science Foundation of China (Project No. 70472060).

1 *See* YU/LIU, The New Developments in Patent Protection for Inventions Involving Computer Programs in China: A Study Based on the Newly Amended Chinese Patent Examination Guidelines, IIC, Vol.38, No.6 (2007), 659-668, at 660.

2 WEI, "SIPO releases its working outline of 2008", China Intellectual Property News, February 15, 2008, 1.

3 SIPO statistics, available at <http://www.sipo.gov.cn/sipo_English/statistics/>, (as of April 2008). *See* also MAO/WANG, "Patent filing top 4 million in China", China Intellectual Property News, January 2, 2008, 12.

Form 1 – Total Applications to SIPO for Three kinds of Patents Received from Home and Abroad[4] (April 1985 – December 2007)

		Total		Invention		Utility Model		Design	
		Number	%	Number	%	Number	%	Number	%
Total	Sub-total	4028520	100.0%	1334676	100.0%	1471191	100.0%	1222653	100.0%
	Service	1993704	49.5%	1021154	76.5%	444881	30.2%	527669	43.2%
	Non-service	2034816	50.5%	313522	23.5%	1026310	69.8%	694984	56.8%
Domestic	Sub-total	3314591	100/82.3	718207	100/53.8	1460557	100/99.3	1135827	100/92.9
	Service	1308821	39.5%	427450	59.5%	436870	29.9%	444501	39.1%
	Non-service	2005770	60.5%	290757	40.5%	1023687	70.1%	691326	60.9%
Foreign	Sub-total	713929	100/17.7	616469	100/46.2	10634	100/0.7	86826	100/7.1
	Service	684883	95.9%	593704	96.3%	8011	75.3%	83168	95.8%
	Non-service	29046	4.1%	22765	3.7%	2623	24.7%	3658	4.2%

[4] SIPO statistics, available at <http://www.sipo.gov.cn/sipo_English/statistics/>, (as of April 2008).

Form 2 – Total Grants by SIPO for Three kinds of Patents Received from Home and Abroad[5] (April 1985 – December 2007)

		Total		Invention		Utility Model		Design	
		Number	%	Number	%	Number	%	Number	%
Total	Sub-total	2089286	100.0%	364451	100.0%	988264	100.0%	736571	100.0%
	Service	998674	47.8%	310264	85.1%	332200	33.6%	356210	48.4%
	Non-service	1090612	52.2%	54187	14.9%	656064	66.4%	380361	51.6%
Domestic	Sub-total	1790379	100/85.7	144387	100/39.6	980029	100/99.2	665963	100/90.4
	Service	712203	39.8%	97964	67.8%	325844	33.2%	288395	43.3%
	Non-service	1078176	60.2%	46423	32.2%	654185	66.8%	377568	56.7%
Foreign	Sub-total	298907	100/14.3	220064	100/60.4	8235	100/0.8	70608	100/9.6
	Service	286471	95.8%	212300	96.5%	6356	77.2%	67815	96.0%
	Non-service	12436	4.2%	7764	3.5%	1879	22.8%	2793	4.0%

2. The Impact of the Former Amendments and the Backgrounds of the Third Amendment of the Act

2.1 The Main Impact of the First Amendment of the Act

2.1.1 Essential Points of the First Amendment

By the first amendment in 1992, a number of differences between the Chinese Patent Act of 1984 and TRIPs were removed. In the Law of 1992, the intrinsic provisions in Article 25 of the Law of 1984, which stated that food, beverages and flavourings, pharmaceuticals, and substances obtained by means of a chemical process are not patentable subject-matters, were cancelled; the duration of a patent right for an invention was extended from fifteen years to twenty years, and for a utility model and for a design it was extended from five years to ten years. The scope of protection of a patent for a production process was expanded to the product directly obtained by the patented process. In addition, the right of import was added to the

[5] SIPO statistics, *supra* note 4.

exclusive right granted to the patentee; and the requirement for granting a compulsory licence was made stricter.[6] After the first amendment, the Chinese Patent Act has been drawn closer to the international standards.

2.1.2 Attracting Patent Applications, Technology Transfer and Investment

The first amendment of the act had brought about encouraging changes in patent applications in China. Firstly, domestic applications for invention had greatly increased. And among the domestic patent applications, there was a rapid increase in the number of patent applications from enterprises. Secondly, foreign patent applications for inventions had increased sharply. In 1993, 9,123 such applications were filed, which means an increase of 108% over 1992. In 1994, the number was 9,928, an increase of 9% over 1993; and in 1995 the number was 14,165, an increase of 42.6% over the previous year. Especially, due to the scope of patent protection in the Patent Act of 1992 extends to food, pharmaceuticals, and chemicals, so there was an obvious increase of the applications in these fields. In the year of 1993 when the first revised act came into effect, the number of applications for patents on chemical compounds reached 1,975, on pharmaceuticals it was 2,871, on food it amounted to 1,574.[7] The following years saw a continuous increase in the number of applications in these areas. These figures show that the Patent Act of 1992 was more attractive than Patent Act of 1984 to foreign applicants. Because of that amendment, favorable conditions already gradually existed in China to utilize foreign technical resources more effectively, and to attract more foreign investment.

2.1.3 Supporting China to be a PCT Member

The first amendment of the patent act structured one of the most important factors, which assured that patent protection in China has met the requirements of the TRIPs Agreement for developing countries and thus paved the way for China to accede to the PCT. On January 1, 1994, China became a member of the PCT, and in the meantime the CPO (nowaday SIPO) became a receiving office of the PCT, as well as an international searching authority and preliminary examination authority. Besides, Chinese became a working language of the PCT. It helps Chinese (including those from Hong Kong, Macao and Taiwan) to apply for international patent protection through the PCT. China's accession to the PCT is also a strong driving force increasing the number of foreign applications, and more important, promoting the further development and reform of the Chinese patent system.

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[6] YU, The Second Amendment of the Chinese Patent Law and the Comparison between the New Patent Law and TRIPS, The Journal of World Intellectual Property, Vol.4, No.1 (2001), 137-155, 145.

[7] Gao, New Developments of the Chinese Patent System, World Libraries, Vol. 7, No. 1 (1996), available at <http://www.worlib.org/vol07no1/lulin_v07n1.shtml> (as of April 2008).

2.2 The Main Impact of the Second Amendment of the Act

2.2.1 Essential Points of the Second Amendment

According to the second amendment in 2000, the most essential differences between the actual Chinese patent act and TRIPs are eliminated. Firstly, the purpose of the patent act legislation was amended, which paid more attention to encourage technical innovations. Secondly, the procedures for examination and approval of patents were perfected. For example, the opportunity for judicial review was also provided for utility models and designs. Thirdly, protection for patentees was strengthened. For example, in the Patent Act of 2000, "offering for sale" has been added to Article 11 as a part of the exclusive rights of the patentee, the provision concerning pre-litigation temporary remedies was provided in Article 61. The punishment was strengthened for passing off a patent and passing off any non-patented product or process as patented. Fourthly, prevention of abuse of rights by the patentee of a utility model was added. Fifthly, the requirement for granting a compulsory licence was made stricter.[8]

2.2.2 Supporting China to be a WTO Member

The Patent Act of 2000 has further enhanced protection of patent rights in all aspects. After that, in 2001, the Chinese State Council adopted the revised "Patent Implementing Regulations", and the Chinese Supreme Court also issued two important judicial interpretations concerning patent litigation. Consequently, these have brought China's patent system fully in line with the levels of patent protection required by the TRIPs Agreement for developing countries. Meanwhile, on October 27, 2001, the Chinese Trademark Act and the Chinese Copyright Act were respectively revised for the second time and first time and enacted together.[9] All of these reforms in Chinese Intellectual Property System became the part of the very important factors, which supported China to be a WTO member on December 11, 2001.

2.2.3 Uprush of Patent Filings and Utilizing of Claims

Since China joined the WTO, two trends have been at work as an impetus for increased filings for Chinese patents: first, China has become a global manufacturing power and a major source of consumer and industrial products in the world market; second, the Chinese government and courts have shown increasing commitment to comply with the TRIPs requirement for providing sufficient protection of intellectual property. With the concomitance of these two trends, few major players in any industry can afford to ignore the strategic advantages of acquiring patents for their technologies in China and the disadvantages of not doing so. The dramatic increase of patent filings in China also indicates, at least to some extent, increasing confidence among patent owners in China's system for patent enforcement.

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[8] YU, *Supra* note 6, at 137-145.

[9] YU, The Regime of Exhaustion and Parallel Imports in China: A Study Based on the Newly Amended Chinese Laws and Related Cases, European Intellectual Property Review, Vol.26, Issue 3 (2004), 105-112, at 106 and 107.

For example, since 2002, foreign firms holding patents of DVD Core technologies, including the 3C Alliance (Sony, Philips, and Pioneer), 6C Alliance (Panasonic, JVC, Hitachi, Toshiba, Mitsubishi Electric, and Time Warner), and 1C (French Thompson), began to charge patent fees from Chinese DVD machine makers for using core technologies in their exported DVD machines with domestic brands. Patent fees levied on Chinese DVD player manufacturers have reached as high as US $27.45 per unit, representing nearly 20 to 30 percent of their production cost.[10] Major international mobile phone suppliers, including Nokia, Motorola, Sony, Ericsson, were also beginning to demand for patent royalty from Chinese manufacturers of GSM mobile phones. In the late 2002 and early 2003, SIPO granted the first two "business method" patents to Citibank. The first is a patent for "an electronic money system" (application No. 92113147) and the second is a patent for "a computer system for data management and method for operating said system" (application No. 96191072).[11] During the same period, however, not a single Chinese bank had filed any patent application for business method related computer programs. It was therefore wondered: Will foreign banks and investment companies eventually monopolize the business method field in the Chinese banking-finance industries?

Such flinty situation of international competition urged more and more Chinese enterprises understanding the importance of patent and innovation, therefore promoted more Chinese enterprises to engage in independent innovations and to pay much attention to protect and utilize their innovation. Gradually, some Chinese enterprises such as Huawei and Haier, acquired to some extent, their competition advantage in domestic and even international market. For example, Huawei Technologies Co., Ltd became global 4th largest patent applicant under the PCT of WIPO, with 1,365 applications published in 2007, following Matsushita, Philips Electronics N.V. and Siemens.[12] In addition, with more than 5,400 PCT applications, inventors and industry from China (7th) experienced 38.1% growth in 2007 as compared to 2006, consolidated China's top ten position in 2007, along with the United States of America (1st), Japan (2nd), Germany (3rd), Korea (4th place), France (5th), United Kingdom (6th), Netherlands (8th), Switzerland (9th) and Sweden (10th).[13]

2.3 The Main Reasons for the Third Amendment of the Act

Through years of practice, the Chinese patent system has been gradually developing, judicial and administrative systems for patent protection have been enhanced.

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[10] Patent Fees Drag Down DVD player exports, People's Daily Online, August 3, 2004, available at <http://english.people.com.cn/200408/03/eng20040803_151685.html> (as of April 2008).

[11] GE, Patentability of Invention Relating to Business Method, China Patents & Trademarks, Vol.75, No.4, 60-61.

[12] WIPO report: Unprecedented Number of International Patent Filings in 2007, available at <http://www.wipo.int/pressroom/en/articles/2008/article_0006.html> (as of April 2008), reported on February 21, 2008.

[13] WIPO report, *id.*

The filing and granting of patent applications have been dramatically increasing in recent years.

However, there are still some insufficiencies in the Chinese patent legislation and practice. Among the patent applications filed by the Chinese applicant, the quantity of real inventions with higher technological quality is not enough. According to the foregoing Form 2, among the 1,790,379 patents granted by SIPO to domestic applicants from April 1985 to December 2007, only 8% of them are patents for invention, along with 54.7% of patents for utility model and 37.3% of patent for design. This leads to unstable patent rights and weak competence in global market.

In addition, enforcement of patent protection is still not very sufficient and quick. There is still no regulation against the abuse of patent rights even in the active Patent Act of 2000. And the regulations regarding the patent compulsory license in the active Chinese patent act also need to be updated, so that they fully accord with international standards stipulated in TRIPs and the Protocol Amending the Agreement on Trade Related Aspects of Intellectual Property Rights, which was agreed by the WTO General Council On December 6, 2005.[14]

Furthermore, Chinese National IP strategy has been determined to better promote innovation. Under the demand of building an innovative country, IP work in China has been promoted to a new historically high position, and recognized more and more by various circles of the Chinese society.

3. The Conceivable Impact of the Coming New Revision

3.1 Main Aspects of the Amendment in the Last Draft for Review

A. The changes in standards for obtaining patent rights
   (a) Stipulating (adopting) an absolute novelty standard for all three kinds of patents, namely patent for invention, for utility model, and also for design.
   (b) Requiring disclosure the geographical oringin of genetic resources.
   (c) Excluding surgical methods from patentable subject matter.

B. The strengthening of the patentee's legal position
   (a) Besides the judicial protection, also improving the administrative enforcement of IP protection.
   (b) Further defining the calculation of damages, *i.e.*, that the compensation shall include all reasonable expenses which the patentee has borne in order to stop the infringing act.
   (c) Increasing the provision of the evidence preservation prior to litigation.

[14] On October 28, the Standing Committee of the Tenth National People's Congress approved the bill of the Protocol Amending the TRIPs of the WTO to balance intellectual property protection and public health promotion. *See* LI, NPC approves TRIPS amendment to enhance access to drugs, China Intellectual Property News, October 31, 2007, 12.

C. Preventing patentees from abusing patent rights
   (a) Improving requirements on compulsory license:
   The grounds for issuing compulsory licenses should be: to remedy anti-competitive practices; for use in situations of national emergency or extreme urgency; for humanitarian assistance. The procedure and scope of issuing compulsory licenses are also amended.
   (b) Adding the stipulation on the prior art defense and prohibition of bad faith litigation.
   (c) Improving the stipulation on limitation of action: If the patentee institutes legal proceeding later than 3 years after the end of statutory litigation term (which ends 2 years after he knows or should have known of the infringement), he will lose his right to compensation for damages caused by the infringements before the day he institutes legal proceeding.
   (d) Improving the stipulation on non-infringement activities.

D. Improving the design patent system
   (a) Narrowing the subject matter of design patents.
   (b) Raising the substantive criteria of design patents.
   (c) Allowing correlated designs to be filed as one application.
   (d) Establishing the search report system for design patents.
   (e) Improving the stipulations on the protection scope of design patents.
   (f) Introducing the rule about "offering for sale" also for design patents.

E. The change in purpose of the patent law legislation and other revisions
   (a) Co-ownership of patent: Every co-owner may exploit the patent alone, however, it must be agreed by all co-owners for validly transfering or licensing the patent right.
   (b) First filing: With reference to international standards, any applications to be filed in foreign countries shall be approved by SIPO, otherwise, the said patent application by SIPO shall not be approved.
   (c) Canceling designations of patent agencies: Permiting any legal patent agency acting as an agent for foreign applications or foreign clients.
   (d) Canceling the stipulation that a Chinese organization or person that files a foreign patent application must entrust a Chinese agency.
   (e) Disseminating patent information to the public becomes a new duty of patent administrative departments.

3.2 Illustrative Example – Parallel Imports of Automobiles

Because the third amendment of the Chinese Patent Act is not yet finished, the impact of the new revision could be only inferred. This author would like to just illustrate one aspect of the impacts of the future act, with the example of permitting parallel imports to China, say in the automobile industry.

In the existing Chinese Patent Act, there is no explicit provision for parallel imports. And up to now, there has still been no court decision related to exhaustion

and parallel imports with respect to patents in China.[15] In addition, there is also no explicit provision for parallel imports in the existing Chinese Trademark Act and Copyright Act. As to court decisions relating to parallel imports, up to now, as far as this author knows, there are only two court decisions related to parallel imports of trademarked commodities, in which China acts as an importing country.[16]

3.2.1 Exceptional Overbid Induced by the Monopolized Importing

Along with the last reduction of tariffs in July of 2006, the Chinese tariff for automobile importing has been reduced to 25% from 80% when China just acceded to the WTO in the end of 2001. Thus the distributing cost has been reduced to a large extent. Nevertheless, the price of the imported automobile in Chinese market has not been depressed as expected.

Since August 2007, all Lexus series automobiles imported and sold in the mainland of China have had a markup from 6,000 to 30,000 RMB, while some of their fittings have been upgraded. According to the result of a price statistic made in 36 big cities in China by the Supervising and Surveying Center of the Chinese National Development and Reform Commission, up to September 2007, compared with the end of 2006, the price of imported automobiles increased by 4.0%, a markup of 0.39% per month. And the price of imported saloon cars rose by 6.42%. Whereas in the same period, from January to September 2007, compared with the end of 2006, the price of Chinese homemade automobiles fell by 3.15%, a depreciation of 0.35% per month.[17]

Even for the same model of cars, there is still no change along with the reduction of tariffs that the price in mainland of China is much higher than in other countries. Taking the car of Lexus GS430 as an example, the price is 54,200 Euro in Germany, equals to around 569,800 RMB. The price in the USA is 52500 USD, equals to around 400,000 RMB. The importing tariff for imported automobiles is also 25% in the USA, just same as in China. The price of the same car, however, is 740,000 RMB. Another example is BMW M6, which is sold at the price of 106,500 Euro in Germany, equals to around 1,100,000 RMB, but is sold in the Chinese market at the price near 1,800,000 RMB.[18]

According to the account of the Automobile Circulation Association of China, from January to October 2007, the CIF price of a single imported automobile exceeded 35,000 USD. The gross profit was usually 20-40%, average profit was 150,000 RMB per car, and the number of the imported cars was 313,000. Thus, the total profit reached to 46.95 billion RMB, which was equivalent to half of the total profit achieved by 8,800,000 Chinese homemade cars.

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[15] *See* Yu, *supra* note 9, at 105-106.

[16] *See* also YU, *supra* note 9, at 106-107.

[17] LIU, Picking up parallel imports again, eliminating the price monopoly for imported automobiles, Financial Time, February 15, 2008, at 23.

[18] LIU, *id.*

3.2.2 Disadvantages of the Distribution System of an Authorized General Agent

Why does the price of imported automobiles persist on the egregious high level? The most direct reason is the distribution system of a general agent for imported automobiles. This system started on April 1, 2005, since the Implementing Regulation of Distribution Management of Marked Automobiles (hereinafter: Regulation) entered into force, which was enacted by the Ministry of Commerce, National Development and Reform Commission, and State Administration of Industry and Commerce of the PR of China on February 21, 2005.[19] Article 6 of the Regulation stipulated, while an automobile manufacturer from the border of Mainland China sells its automobile in the Mainland China, it needs to authorize an enterprise in Mainland China or set up a company in Mainland China in terms of the Chinese laws and regulations, as it is the general agent for automobile distribution. This company in Mainland China should frame and implement a distribution net and strategy.[20]

Actually, the original intention of the Regulation is trying to mitigate the impact of imported automobiles under a low importing tariff on Chinese domestic automobile industry. As a result of implementing the Regulation, however, the rights of commanding distribution have been totally given up to the foreign automobile manufacturers. Those general agents therefore have the power to decide over the supply and price of the imported automobile. Also, since April 2005, the former franchisers engaged in trade of imported cars have become sub-dealers who can only stock from the general agent.

Under the circumstance that the price of Chinese homemade automobiles have been played down and the Chinese RMB has increased in value, it was inconsequential that the price of imported cars persisted with markup of high levels in the year of 2007. It does not reflect the rule of full market competition.

3.2.3 Eliminating Monopolization by Permitting Parallel Imports

In order to solve the above-mentioned problem that general agents gain huge profits and consumers do not enjoy benefits brought from the opening of the market, the Ministry of Commerce of China has decided to amend the Regulation. *Inter alia* permitting parallel imports of automobiles would be the important measure to bate the monopoly of imports.

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[19] Implementing Regulation of Distribution Management of Marked Automobiles, *see* <http://www.gov.cn/gongbao/content/2005/content_108159.htm> (as of April 2008).

[20] *Id*, at Article 6.

From the laws and cases of some other countries, such as Japan,[21] Korea[22] and Singapore,[23] one can see that these countries also permit parallel imports of automobiles as an effective measure to restrict the monopoly of general agents and to promote market competition.

On the other hand, for the purpose of ensuring the quality of the parallel imported automobiles and relevant after services, beginning on March 1, 2008, the management system of validating of VIN (Vehicle Identification Number) of automobiles will be implemented in China. Thus, the counterfeit cars will easily be rejected, because every car has its exclusive VIN. Certainly, the VIN checking system will also make it difficult to arrange parallel imports.

In the last revision of the third amended Chinese Patent Act, permitting parallel imports is expressly stipulated, which will, provide a legal basis for the Regulation permitting parallel imports of automobiles. Parallel imports of automobiles can restrain the unreasonable high price of imported cars, which will also provide domestic automobile manufacturers fair competition, and will promote them to obtain increased capacity for independent innovation.

3.3 Other Conceivable Impact

The third amendment will bring the coming new Chinese Patent Act further in line with the standards of TRIPs. At the same time, according to the CBD[24] and the Doha Declaration[25], and also making use of the flexibility granted by TRIPs to a certain extent, the third amendment will also make the coming new act more suitable for the development of economy and the IP system in China in this developing phase.

Many of the amendments, *inter alia* provision of the evidence preservation prior to litigation, and a more reasonable calculation of damages and administrative enforcement, will provide more quick and sufficient protection for patentees. With the new provisions preventing patentees from abusing patent rights, the interests between patentee and public should be better balanced. By adopting an absolute novelty standard and by raising the substantive criteria for design patents, innovation and creation activities in China should be better encouraged. All of these will better promote China to build a creative and innovative country, to cooperate with other countries, and to better contribute to the globalized economy.

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[21] *See* YU/WU/JIANG, Difficult Choice – Analysis on the Legislation and Cases on Exhaustion of Patent Rights and Parallel Imports in Japan, Electronics Intellectual Property 10/2004, 47 – 50 and 57, at 49.

[22] *See* YU, Study on the system of exhaustion of intellectual property and parallel imports in Korea, International Trade, 4/2002, 40-43.

[23] *See* YU, Study on the system of exhaustion of intellectual property and parallel imports in Singapore, Electronics Intellectual Property, 5/2002, 48-52.

[24] Convention on Biological Diversity, The full text of CBD in English is available from the Web page offered by the CBD: <http://www.cbd.int/convention/convention.shtml> (as of April 2008).

[25] *See* Draft Declaration on the TRIPs Agreement and Public Health, WT/MIN(01)/DEC/W/2. The full text of the Doha Declaration in English is available from the Web page offered by the WTO, <http://docsonline.wto.org/gen_search.asp?searchmode=simple> (as of April 2008).

Publications by Professor Dr. Dres. h.c. Joseph Straus

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