Cooperation without harmonization:
The U.S. and the European patent system

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Introduction

Since the beginning of the new millennium at the latest, both the U.S. Patent and Trademark Office (USPTO) and the European Patent Office (EPO) are under serious pressure. Given the exploding number of patent applications, both offices suffer from an increased workload. At the same time, the patent offices are severely criticized for quality deficiencies of the examination process. In order to address these problems, the USPTO and the EPO have initiated a close technical and administrative cooperation. They have launched projects to achieve IT infrastructure compatibility and automated translation tools, and it is agreed to standardize application forms and to homogenize the classification system of granted patents. Moreover, various pilot programs are underway by which the research and examination results are commonly used. Despite an enhanced administrative and technical cooperation, a mutual recognition of examination results is legally precluded because of significant procedural differences between the U.S. and the European patent law. First and foremost, in the U.S., the first inventor is entitled to patent protection, whereas in Europe, patents are granted for the first applicant. Furthermore, European patent law insists on an absolute novelty standard, whereas an inventor may apply for a U.S. patent if he has published his ideas less than a year before the application date. As yet, all efforts to harmonize patent application requirements have shipwrecked.

The empirical findings are somewhat astonishing. Given the techno-judicial nature of patent application regulations, one might assume that functional spillovers in the sphere of administrative cooperation would inevitably lead to political spillover effects by which a legal harmonization should be achieved in due time. (Jensen 2000; Haas 2006 [1968]) Neo-functionalist theorists might suppose that an ongoing transatlantic exchange between patent officers and ministerial delegates would facilitate a common problem-solving approach that supersedes minor ideological rifts. (Cummings/Chand 2007; Risse 2004) Furthermore, they might expect that transnational actors such as lawyers’ or business associations increasingly tend to address their policy demands to an international audience, whose insights could override domestic reservations. (Haas 1992; Quack 2006; Neyer 2006; Van Waarden/Drahos 2002) Multi-level governance theories would not deny these mechanisms, but they would rather emphasize the emergence of an international “government network” supported by societal actors that would lead to an issue-defined governance structure by which both European and U.S. values and interests were mediated. (Slaughter 2004; Rosenau 1997)

In our article, we do not deny that pro-harmonization mechanisms as they are described in neo-functionally inspired theories or governance-led approaches exist. As we will show, they are indeed empirically observable in the field of patent policies. But we insist that focusing on the international level cannot explain the prima-facie contradiction of administrative rapprochement and legal dichotomy. Instead, we will argue that a reconsideration of the domestic configurations of the U.S. and the European patent system are more apt to deliver a sustainable explanation for our dependent variable. More specifically, we will elaborate on distinctive normative frames (1), varying actors’ landscapes (2) and incommensurable institutional environments (3) as independent variables. In our conclusion, we will attempt to assess the

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1 The paper summarizes initial findings of an ongoing research project funded by the Fritz Thyssen Foundation (Project No. 53240309). Empirical evidence has been obtained by internet-based enquiries, personal talks during various meetings and conferences at the World Intellectual Property Organization (WIPO) in Geneva, at the German Federal Patent Court (Munich), and at a conference on the future of software patents organized by the European Patent Office in Brussels. Furthermore, 49 interviews have been conducted in Geneva, Brussels, and Strasbourg. We are deeply indebted to Susanne Lütz (Fernuniversität Hagen) for helpful comments and suggestions.

2 Minor exceptions to the absolute novelty standard in Europe (e.g. in the case of international exhibitions) remain disregarded for the sake of simplicity.
relationship between international and domestic factors and to prioritize the domestic factors with regard to potential harmonization processes.

1 Nuances matter

Both in the U.S. and in Europe, the timeliness of a high-quality patent grant procedure is perceived as a priority. Officials from the USPTO and the EPO meet on a regular base to discuss ways and means to achieve these goals. Numerous joint declarations have been issued, in which both offices’ show their commitment to an accelerated examination process and quality improvements. Under the auspices of the trilateral cooperation between the USPTO, the EPO and the Japanese Patent Office (JPO), they have recently initiated a new Trilateral Working Group on Enhanced Work-sharing. (EPO 2007a: 13). Furthermore, USPTO and EPO have established an exchange program for patent examiners in order to implement best practices from both offices in their daily routine. The increasing amount of agreements on technoadministrative cooperation fit in domestic expectations that efficient patent systems support the innovativeness of both economic spheres.

In the United States, experts and practitioners are aware that patents play an increasingly important role in the growth of innovation and economic performance in a knowledge-based economy. From their perspective, this is indicated by the sizeable boom in the number of patent applications filed in the United States in the last two decades. In that period, patent application filings have constantly risen, with annual rate increases of 10 percent in some years (USPTO 2007). In fact, the current strategic plan of the United States Patent Office (USPTO) anticipates that “patent application filing will continue to rise at the rate of eight percent per year through 2012” (USPTO 2007). Over the past decade, the USPTO workload has increased in size and complexity. Because of this unprecedented growth, patent pendency rates in the United States average over two years, and, without significant changes to the methods of processing applications, data shows pendency will soon reach three to four years (Dudas 2007).

The pendency rate is perceived as a critical issue in industries with short product timescales. Especially in fast moving electrical, software and computing fields the timing is deemed to be extremely important. In the U.S., the software and computing industry is seen as highly strategic, as it creates jobs and adds value to the U.S. economy. In this regard, the economic well-being of this special area and its direct impact on American competitiveness is constantly emphasized. A patent system in which the time between filing a patent application and the grant of the patent seems to be longer than the useful life of the product runs the risk of being a paper tiger. Furthermore, among USPTO decision-makers, reducing pendency is often mentioned in the same breath with improving quality. In this regard, the USPTO aspires to a mutually beneficial cooperation with the EPO in order to reduce its workload through simultaneous consideration of quality issues (Dudas 2005). Thus, from an American point of view, a deeper cooperation among the EPO and the USPTO could be a strategy to kill two birds with one stone.

As in the U.S., the sharp rise in patent applications is perceived as a major threat for the sustainability of the whole patent system in Europe. (Harhoff 2006) Compared to the early 1980s, the number of patent applications at the EPO has more than quadrupled; and the office assumes a further increase of more than 50% during the course of the next ten years. (EPO 2007a: 3ff) Critical observers, politicians and the EPO staff agree that the EPO does not dispose of sufficient capacities to cope with the steady flood of applications. (Borràs 2006; interview 004; heise 2006) Extended pendency rates, which are perceived as a direct result of an
increased workload, are bitterly complained for various reasons. A lack of timeliness is often associated with legal uncertainties both for the applicant and its competitors. Both sides are not able to calculate the eventual costs, e.g. licensing fees or incomes, in the case of an industrial application of the innovation. Furthermore, extended pendency rates are alleged to imply further complications in connection with the European granting procedures: As all claimed inventions are published in the EPO databases 18 months after the filing date, innovators must fear that competitors (esp. from China) will imitate their ideas even before a patent has been granted in Europe. This again is said to imply a general distrust in the patent system as an adequate instrument to protect industrial inventions, because trade secrets are deemed to regain an important role in the protection of innovations. (Financial Times Deutschland 2008)

Taken together, the increasing backlog at the EPO is perceived to undermine the allocative function of the patent system in the dissemination and commercialization of knowledge.

An enhanced cooperation between the USPTO and the EPO is often regarded as an appropriate remedy for these problems. Both European decision-makers and practitioners are convinced that standardized application files, harmonized classification systems for granted patents and the mutual utilization of examination results may accelerate the examination process and decrease pendency rates in Europe and the U.S. (interview 033; 037; Trilateral Conference 2004) Experts draw on the experience of the successful cooperation of all European patent offices. In respect of an increased cooperation with the USPTO, they refer to the accomplished pre-examination of worldwide patent applications under the PCT (Patent Cooperation Treaty) system. (van Benthem 1990) From the European perspective, however, furthering cooperation among the world’s leading patent offices is by far not the only approach to address the backlog. There is a widespread agreement among European stakeholders and regulators that raising the threshold for patentability may deter dubious applications and lessen the office’s workload. Thus, EPO strategists recommend “granting exclusive rights only for innovations with sufficient inventive merit.” (EPO 2007a: 18)

The European emphasis on quality issues does not foreclose an extended technical and administrative cooperation with the USPTO. But unlike their U.S. counterparts, European practitioners and regulators are not convinced that an enhanced cooperation inevitably triggers improvements in the quality of the examination process. Rather, they consider the maintenance or even an upgrading of quality standards as a precondition for work-sharing initiatives. Differing nuances between the European and the U.S. perception on an enhanced cooperation become even more visible, when the debate turns to legal harmonization issues. Although a transnational discourse has been taking place for over twenty years, the fundamental beliefs of both U.S. and European participants have remained unaltered and irreconcilable. Both sides’ perceptions on patent law are shaped by historically diverging legal traditions.

When creating the U.S. patent system, the colonial “founding fathers” had been most likely influenced by developments and precedents in their mother country, England (Stedman 1971:246). In this respect, the U.S. legal tradition is strongly influenced by the British Common Law tradition and it’s Lockean “natural law assumption”. This natural law theory heavily influenced American political thought during the eighteenth century. The first high-water mark of the natural rights theory in the U.S. was the Declaration of Independence, as it asserted that “the unalienable Rights” of “Life, Liberty, and the pursuit of Happiness” were endowed upon human beings. The influence of Locke’s ideas on this part of the Declaration of Independence is obvious. The form and phraseology closely follow certain sentences of Locke’s Second Treatise, where he explained “Lives, Liberties, and Estates, which I call by the general Name, Property” (Locke 1978 [1690]: 180). Furthermore, the close relationship between the Declaration of Independence and the Lockean understanding of property “as a mixture of nature and human labour” (Eimer 2006: 5; Locke 1978 [1690]: 129f) was confirmed by Supreme Court Justice William Patterson, who noted in 1795: “It is evident that the
right of acquiring and possessing property, and having it protected, is one of the natural, inherent, and unalienable rights of man. (…) No man would become a member of a community, in which he could not enjoy the fruits of his honest labour and industry” (Van Horne’s Lessee v. Dorrance, 2 U.S. [2 Dall.] 304, 319 [1795]).

The beginning of a genuine U.S. patent system goes back to the implementation of the Patent Clause of the US Constitution, which empowers Congress to “promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive right to their respective writings and discoveries” (U.S. CONST. art. 1, §8, cl. 8). Based on this, the Congress enacted the first Patent Act in 1790. This first Patent Act and the one following in 1793 already emphasized the role of the “true” and “original” inventor (Patent Act of 1793, Ch. 11, Sec. 3 & 4). This individualized concept of inventing became more important in the 19th century, when romantic notions of the human being behind the Creator led to a new U.S. patent act in 1836 and the simultaneous establishment of a so-called first-to-invent system (Konrad 2007: 1631). While patent and copyright laws in Europe were being affected by an extensive “anti-patent” movement during the 19th century and the Second Industrial Revolution, the legal practice of patent laws was persistently supported in the United States. Inventors such as Benjamin Franklin, Thomas A. Edison and Alexander Graham Bell were idolized (Scherer 2007: 2). Over the years, Thomas Edison earned patents for more than one thousand inventions. After achieving this, he established corporate research laboratories and employed patent attorneys as campaigners for heightened patent protection (Drahos/Braithwaite 2002: 43ff.). Nevertheless, U.S. historiography describes Edison’s turn “from ‘Yankee genius’” (May/Sell 2006: 122) to successful businessman as the ability of one single man to translate innovation into marketable products. The theoretical underpinnings of this highly individualized notion are rooted in reward theory, which holds that society should reward an inventor, in the form of a patent, for providing his invention to society. Even today, the normative claim that individuals should be rewarded for virtues such as hard work persists in the U.S. (Harriel 1996).

Hence the U.S. patent system, with its first-to-invent standard, codifies the concept of rewarding the individual inventor for such virtues by increasing his profit and discouraging competitors. A prominent example of the “rewarding” idea is the Bayh-Doyle Act, which was signed into law in December 1980. The bill pursued its goal of stimulating the commercialization of innovations by giving a direct reward to the inventor. The logic of rewarding the first inventor is also found in interference proceedings. In instances where a patent has already been awarded, current U.S. law provides the vehicle of interference proceedings to determine the first inventor. Although these proceedings are usually long and costly, they are inevitable in a patent system which propagates irrevocable rights of the first and true inventor. Another fact that highlights the prestige role of individuals and small entities are financial incentives these groups obtain from the USPTO: independent inventors, small firms, and universities receive a 50% discount on many USPTO fees and take direct advantage.

However, today’s U.S. patenting practice not only confirms the reward theorem in advocating the first-to-invent system. Reward theory also allows for a “grace period”. During the one-year grace period, inventors may still file for patent protection even though the invention has already been publicly disclosed. Thus, even if an inventor has already published his idea, the U.S. patent system rewards “the first and true inventor” by “graciously” giving him a patent.

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3 The Bayh-Doyle Act permits small businesses and individual academic researchers to register patents based upon research that was or is still federal funded (Scherer 2007: 17) and helped to small entities and universities to become “full-fledged” (Thomas/Schacht 2007) partners within the U.S. patent system.
In addition, the current U.S. patent system in general does not recognize prior user rights. Again, the fear of an extension of prior user rights lies in undermining the rights of independent inventors. It is suspected that “prior user rights” would enable corporations to steal the independent inventor’s constitutional right to exclusive ownership of his own discovery. Furthermore, it is feared that “prior user rights would harm small business start-ups” because, “after taking the sizable risks of R&D and market testing, a company could face the prospect of a market Goliath suddenly following up with a no-royalty product” (Neis 2007). In sum, one could claim that the mystique of the lonesome inventor “toiling away in his garage” (Jaffe/Lerner 2006: 161) still lives on in today’s U.S. patent law.

Unlike the U.S., a natural rights justification of intellectual property or, more specifically, patents has remained controversial in the European legal, philosophical and economical discourse throughout the centuries. John Locke’s groundbreaking assumption that individual, intellectual labor justifies individual, intellectual property had not been widely received in the continental European academia till the late 1770s. Rather, the presumption of a “dominium directum”, i.e. a superior ownership assumption in favor of a country’s sovereign, had remained the leading policy paradigm for most legal scholars. (Oberndörfer 2003: 102ff; Hoffmann 2000) During the French political turmoil in the late 1780s, the notion of individual intellectual property as a natural right was brought up by a handful of republican jurists, but the idea remained closely associated with the advancement of public welfare. (Machlup / Penrose [1950] 2002: 19) French jurists invented the term “public domain” as a correlative to intellectual property. (Ginsburg 2006: 2) Despite the leapfrogging industrial revolution in continental Europe in the 19th century, the legal consolidation of private ownership of production means and intellectual property assets remained strongly contested by left-wing, anarchic and Marxist theorists. (McChesney 2003: 13; Nuss 2006: 172ff) But even rather conservative philosophers like Hegel, whose writings were warmly received by the German intellectual property jurists, cautioned against an individual possessiveness, that might seriously affect a society’s welfare. In Hegel’s thoughts, the state had to safeguard the balance between individual interests and societal demands. (Drahos 1996: 82ff)

Given the continental European intellectual atmosphere, natural right justifications of patent protection could not gain momentum. Thus, intellectual property jurists emphasized the fiction of a social contract between an inventor and the public. They argued, that society should grant the inventor a temporarily limited monopoly as a quid pro quo for sharing his ideas with the public. (Bakels 2005: 12) Contract theory justifications fell in with the traditional distrust of individual property rights. As governmental patent authorities are empowered to define patent rights, the state in a sense safeguards its “dominium directum” over the realm of all potential entitlements. Since the late 19th century, the legal contract fiction of patent law has remained rather unchallenged in continental Europe and has even survived the communist era in the eastern countries. (Schamlu 1985: 39ff) The European Group on Ethics, which provides the European Commission with ethical expertise, puts the equation in a nutshell: „The inventor secures exclusive rights to control commercial exploitation of his invention for 20 years and, in return, he must disclose a detailed description of his invention, making the new knowledge available to all.“ (European Group on Ethics 2007: 29)

Subscribing to the contract theory of patent legislation, it is of absolutely no significance, whether an applicant is the true inventor of the claimed innovative products or processes. Everybody who is willing to share its knowledge with the public may be granted a patent, provided he is the first to communicate a technology to society. Therefore, the first-to-file system

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4 Prior user rights would allow for the unlicensed use of a patented technology in the case that the said technology has already been employed before patent application. In the U.S., prior user rights are limited to business methods (i.e. computer programs for commercial purposes, see section 2).
as it has been established in all European jurisdictions and at the European Patent Office may be perceived as a practical application of the contract theory. Even more, the contract fiction is deeply enshrined in the European perception on equity and justice. Although practitioners from the European and national patent offices as well as political decision-makers regularly exchange with their U.S. colleagues about a potential legal harmonization, the idea that Europe could switch to the American first-to-invent system has never been mentioned during the discussions.

Not only does the contract theorem induce the maintenance of a first-to-file system, but it also explains the European reluctance in respect of the introduction of a grace period. The contract’s logic attempts to establish a “balance between knowledge protection and information dissemination” (European Group on Ethics 2007: 35). Within this frame, one could argue that an inventor, who has already published his ideas, e.g. in a scientific journal, may be granted a patent as an “act of grace” – although society does not profit from a secondary publication in a patent specification, it may concede the economical benefits of a monopoly to the originator of an idea. Before the European Patent Convention (EPC) came into force, many of its signatory states (e.g. Germany) had granted a grace period in a qualified sense. (Strauss 2000) However, the principle of balancing individual and public interests implies that a grace period must not affect third parties acting in good faith. If an innovation has been published without patent protection being sought, it is perceived as equitable and just for the majority of European negotiators that the innovator’s competitors may continue to employ the technology in question, even if the innovator applies for a patent at a later moment. It is at this very point that the perceptions of fairness derived from a contract theory clash with a natural rights-based deduction of patent legislation. From the U.S. perspective, the European approach clearly betrays the ingenious innovator and treats his “discovery as a legacy to society almost from the inception.” (Choate 2006) Having in mind the differing justification schemes of patent legislation in Europe and the U.S., it comes at no surprise that U.S. negotiators simply do not understand why their European colleagues take such a tough stance against the introduction of a grace period. (Interview 038)

To conclude, the perception on patent regulation and its intrinsic problems shows manifold similarities in the U.S. and in Europe. Both sides agree that patent protection may be a useful instrument to stimulate innovation. They further agree that something has to be done to cope with the increasing flood of applications. These commonalities, which are backed by their national resp. regional constituencies, facilitate the accomplishment of agreements in respect of technical and administrative cooperation. Nevertheless, slightly differing interpretations of the nexus between workload, pendency rates and examination quality that are rooted in each domestic context prevent the EPO officials from a whole-hearted appreciation of further work-sharing initiatives. But even if European practitioners would subscribe to the ultimate aim of a mutual recognition of patent entitlements, enormous legal adjustments would therefore be necessary. These adjustments, in turn, would necessitate a rapprochement between the ethical underpinnings that lay at the heart of the U.S. and the European patent systems. Innumerable international conferences notwithstanding, neither the U.S. nor the European participants seem to progress towards a shared understanding of the inventors’ and society’s legitimate claims as regards innovation.

2 Mixed distributions of interest

Patent offices’ deliberations on technical and administrative cooperation have attracted numerous transnational organizations of interested stakeholders. After the Trilateral Meeting of patent offices had been established, lawyers’ associations and peak industry organizations
followed their example and founded the Trilateral Users’ conference in 2003. Since 2005, the users’ meetings are synchronized with the offices’ conferences. Lawyers’ associations like the International Federation of Intellectual Property Attorneys (FICPI), the International Association for the Protection of Intellectual Property (AIPPI) and the American Intellectual Property Law Association (AIPLA) participate in the World Intellectual Property Organization (WIPO) working groups on patent law, and business interests make their voice heard during OECD deliberations. The role of internationally oriented, societal actors is not confined to the expression of their interests and the provision of practical expertise. In many fora, they talk on equal footing with the patent offices’ representatives and even co-author position papers or strategic guidelines. (WO/GA/31/9) Nevertheless, there are only a handful of organizations which are continuously preoccupied with the international deliberations. Most industry groups, legal think tanks and regional resp. national lawyers’ associations occasionally show up at international conferences, but they still focus their activities on domestic relations.

In the U.S., stakeholders’ involvement has been partially institutionalized by the establishment of the Patent Public Advisory Committee (PPAC), whose members represent a broad profile of USPTO users. Besides patent attorneys, members of the pharmaceutical industry, universities and the semiconductor industry are represented in the PPCA. Remarkably, at least 25% of the nine voting members (all of whom are selected by the Secretary of Commerce) must represent small entity patent applicants. The committee’s purpose is to advise the Director of the USPTO on management issues. Although this group seems to be very heterogeneous, it speaks with one voice with respect to administrative and technical cooperation. In its Annual Report 2007, the PPCA characterizes the current pendency rates at the USPTO as one of the most pressing concerns (PPCA 2007). Faced with this problem, the PPCA recommends that the USPTO cooperate with the EPO on matters like search strategies and databases. From their point of view, administrative cooperation could be enhanced by modifying fee structures and processing times to reflect the benefit of trilateral searches (PPCA 2007: 11). Despite their important input to the USPTO, the advisory board plays a rather secondary role compared to the well-organized and financially strong business groups and lawyers’ associations.

The American Intellectual Property Law Association (AIPLA) is an internationally oriented law association. With more than 16,000 members, AIPLA is a powerful stakeholder on the international stage. To manage its close relations to the USPTO, AIPLA has established a forum called “Patent-relation with the USPTO”. Within this panel, AIPLA clearly advocates closer techno-administrative cooperation between the USPTO and the EPO in the form of common training of examiners and shared databases. Since both patent offices face an extremely high workload, AIPLA regards these instruments as a possibility to stimulate greater efficiency and patents of higher quality (Kasper 2007: 11). Another potent legal representative is the American Bar Association’s Section on Intellectual Property Law (ABA-IPL), which calls itself the “world’s largest intellectual property organization”. Like AIPLA, ABA-IPL has also established a committee specifically dealing with USPTO patent affairs. Working in concert with the AIPLA, ABA-IPL also promotes moving “to a multi-track examination process” in order to reduce the number of redundant applications and the workload of the USPTO and other intellectual property offices (ABA 2007). The ABA also supports a special student program at 195 “ABA-approved” law schools all over the U.S. By financing such programs, the ABA ensures the long-term continuity of its community spirit.

As noted above, the computing and software industry is seen as highly important within the U.S. economy. Not surprisingly, stakeholders dealing with these issues are considered to be fundamental actors in fields of IP decision-making. In the U.S., the Business Software Alliance (BSA) represents members like Apple, Microsoft, Dell and IBM. With its self-understanding of “the leading voice for the high tech industry”, BSA promotes stronger intellectual property protection as its primary goal. Accordingly, BSA is very open-minded
about questions concerning a deeper cooperation among the two patent offices. From its point of view, a common searching system would “dramatically improve the system” (Phelps 2007: 543). Although the aforementioned legal groups and the BSA are very different with regard to their interests, environment and clientele, they seem to speak with one voice in advocating the extension of techno-administrative cooperation. One could assume that, by supporting this kind of cooperation, the different groups expect to increase their business activities. On the other hand, legal groups anticipate offering their advisory services to a broad American clientele that is willing to invest in the European market.

The Intellectual Property Owners’ Association (IPO) represents a broad range of mid-size and small industry interests, executives and law firms. Hence, their list of members reflects intellectual property owners in almost all fields of technology and industry. As regards an extension of cooperation, IPO is of the opinion that high quality patents are only feasible if the USPTO shares its search and examination results with the EPO (Adler 2007). On the other hand, IPO decision-makers regard an agreement concerning the limitation of claims with skepticism. For them, a limitation of claims like that proposed by USPTO and EPO to reduce the offices’ workload (Hawley 2005) limits the ability of small and independent inventors “to fight with the USPTO” (Agres 2007).

The pharmaceutical and biotech industry organizations, namely the Biotechnology Industry Organization (BIO) and the Pharmaceutical Research and Manufacturers of America (PhRMA), also criticize the proposed limitation of claims. From their point of view, fewer claims do not necessarily provide for a better and more reliable examination (Whitaker 2006: 8). If USPTO limits the number of claims, the pharmaceutical industry will be forced to drop its strategy of filing an unlimited number of claims to extend the coverage of an invention. For the pharmaceutical industry this would cause a great uncertainty, not least on the European market. Nevertheless, pharmaceutical stakeholders also welcome broad administrative cooperation among the patent offices with regard to common databases and better training of patent examiners.

Both the Wisconsin Alumni Research Foundation (WARF) and the Professional Inventors Alliance (PIA), which represent the interests of universities as well as small and independent inventors, seem to be less reluctant. Regarding the proposed limitation of claims, WARF is less critical: “I would rather give a little bit on the front end [in terms of restricting the number of continuations and claims] and hope that we get more patents on the back end”, says Carl E. Gulbrandsen, managing director of WARF (quoted in: Agres 2007). In conclusion, the potential results of strengthened cooperation between the two patent offices seem to be less important for universities and independent inventors, whose markets are rather national. However, they do not oppose extended, techno-administrative cooperation.

Overall, there exist only minor differences in the actors’ perceptions of perspectives on administrative harmonization (e.g. the limitation of claims). All in all, nearly all U.S. stakeholders act in concert promoting a deeper techno-administrative cooperation between the U.S. and the European Patent offices. Generally, the same holds true for European actors.

In Europe, particularly patent attorneys stand to profit from very close relations with the EPO. The European Patent Institute (EPI), which represents all European patent attorneys before the EPO, is not merely a bottom-up organization of stakeholders. Rather, it can be considered as an affiliate of the office. Like EPO itself, its foundation and organization is based on the European Patent Convention. EPI’s representation in the office’s strategic working groups is required by law. National patent lawyers’ associations like the German Patentanwaltskammer (Chamber of Patent Attorneys) of the British Chartered Institute of Patent Attorneys (CIPA) do not benefit from a quasi-corporatist representation. However, there is a close relationship between national patent lawyers’ associations and EPI, because the latter’s regulations pre-
scribe a compulsory membership for all patent attorneys as a prerequisite for an admission before the EPO. Apart from the close relations between the EPO and the patent lawyers’ associations, all major European legal research establishments have joined the European Intellectual Property Institutes Network (EIPIN) under the umbrella of the patent office. EIPIN members do not confine themselves to the training of future patent lawyers, but they also comment and accidentally incite regulatory reforms.

Taken together, the European Patent Office has created and is surrounded by a dense “legal community” (Burley / Mattli [1993] 2006). In the words of Walter Holzer, patent attorney and former president of the EPI, the European “patent world is a hermetic world of a few thousands of people (…). For the world of believers, no better system has been developed to protect technology.” (quoted in EPO 2007: 102) At least the practitioners within this milieu strongly support a closer cooperation with the USPTO in respect of administrative and technical cooperation. From their point of view, a reduced pendency rate during the examination process and, eventually, lower costs for patent applications could raise the attractiveness of patent protection. This again is expected to contribute to accruing incomes for patent lawyers. As regards the legal researchers in this policy field, their participation in the debate on techno-administrative cooperation agreements is deemed to increase their academic reputation and serves as an enduring intellectual adventure.

The legal community’s enthusiasm for an extended cooperation with the USPTO is not necessarily shared by business representatives. Indeed, Europe’s peak industrial organization, Business Europe (former UNICE) agrees with EPI that common application sheets, shared classification systems and a sort of cooperation with the USPTO in respect of the utilization of search results would be desirable. As Business Europe is integrated in the quasi-corporatist system of interest representation before the EPO, they have a great impact on the office’s strategic positioning. Nevertheless, business representatives are awake to the danger that too much cooperation would increase the patent activity of U.S. corporations in Europe. This holds true especially for relatively new economic sectors, e.g. information and communication as well as biotechnology. European firms are generally smaller than their U.S. counterparts. They fear that their further research and development activities could be stifled by U.S.-dominated patent thickets. Therefore, the Patent Documentation Group (PDG), a loose network of European research-based enterprises sticks to the quality proviso in respect of all cooperation efforts: “As the European economy is highly competitive as well as knowledge-based, its future ultimately depends on the protection of its intellectual property assets and any steps taken to strengthen (and not to weaken) the maintenance of quality in the patent arena are strongly supported.” (CA/95/06) From this perspective, the maintenance of high examination standards is not only regarded as a means to reduce the workload at the EPO. Perhaps more important, the European industry’s rhetoric of quality patents proves as a useful weapon against an unwelcome competition from overseas.

For sure, the ambiguousness of the European business organizations’ position does not foreclose any progress in technical and administrative cooperation between the USPTO and the EPO, but industry stakeholders are able to thwart the lawyers’ most ambitious plans in this field. The underlying clash of interests between U.S. and European corporations seems even more important in respect of legal harmonization issues.

In the U.S., current debates about patent reform focus on adopting the first-to-file system. Since 1790, the patent has been awarded to the first inventor. Today, the U.S. stands alone in the world, and many argue that they should, in interest of a harmonized patent law, change its system so as to award a patent to the first applicant. Among the different interest groups the debate on switching to a first-to-file is vigorous. First of all, the Business Software Alliance seems to be very receptive towards a broad patent reform in the U.S. Among BSA members, a switch towards a first-to-file principle equivalent to European standards is strongly supported.
The environment of U.S. high-tech and computer industry, including some market leaders like Microsoft, is hardly comparable to those of European member states. A broad harmonization of the two patent systems would facilitate market expansion of most BSA members towards the European market. As prior user rights are already recognized in the U.S. for most IT-relevant products, their introduction in Europe does not impede the American IT-industry’s support for a legal harmonization including the adoption of a first-to-file system.

From the perspective of the pharmaceutical and life-science industries (represented by PhRMA and BIO), however, the approval of a first-to-file system in the U.S. depends on Europe’s willingness to accept the introduction of a grace period. Pharmaceutical and biotech corporations emphasize their significant costs for Research and Development (R&D) and claim a large “disparity between the investments of innovators and those of imitators”. (Scherer 2002: 1352) A one-year grace period, as an “important safeguard”, is seen as a prerequisite for pharmaceutical industry support for any legal harmonization with Europe. (Feldbaum 2001: 16) In the U.S., there is a close working relationship between pharmaceutical industry and academic research institutions which has been widely viewed as one of the contributors to successful innovation. (Hall 2004) In this regard, a grace period is of utmost importance for the pharmaceutical industry. For instance, if an academic partner from a research joint venture has already published an invention in a scientific journal, the grace period ensures the patentability of this pharmaceutical invention. Although pharmaceutical stakeholders accept the adoption of a first-to-file system to avoid legal and commercial uncertainty caused by distinct patent systems, the U.S. versions of the elements of a harmonized patent system (i.e. first-inventor-to-file in combination with a one-year grace period) are claimed as the best option that has to be preserved. (Santamauro 2007: 2)

Unlike most European countries, research activities of U.S. universities focus on the commercialization of scientific results. A shift from a first-to-invent system to a first-to-file approach is rated as critical by academic R&D organizations. From their point of view, a first-to-file system would trigger a run on the patent office and therefore discourage inventions, not only for universities, but among small and independent inventors who lack the budget and expertise to quickly fill patents. Also the first-inventor-to-file as a “hybrid version” (Halford 2005) is hardly appreciated among organizations, who own the patents entitlements for academic inventions. On the other side, the critical need for a one-year grace period is always accentuated. For academic inventors, depending on the commercial prosperity of their invention, the grace period enables them to engage in scholarly discourse through presentation and publications while still retaining the right to obtain a patent (Bagley 2005: 33). The same holds true for lobbying groups representing small and independent inventors (e.g. PIA), because they regard a grace period as a protective measure that ensures the necessary time for evaluation for commercial potential of their inventions. (Riley 2005)

Having a closer look on lawyers associations within the harmonization debate, their Janus-faced strategy becomes obvious. On the international stage, AIPLA attempt to shift to a first-to-file system since 1992. (Oppenheimer 2007: 7) Within negotiations on the Trilateral-level, AIPLA argues in favor of a “grace period […] drafted in the context of a first-to-file system”.

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5 Although patents on software “as such” are precluded by the European Patent Convention (Art. 52), IT corporations from the U.S. have been able to circumvent these limitations. Critical observers assume that the European Patent Office has already granted over 30,000 software patents mainly to U.S. corporations. (Eimer 2008)

6 Till 1998, business methods had not been patentable in the U.S. and companies had relied upon trade secrets to protect computer programs for commercial purposes. After the Court of Appeals of the Federal Circuit’s verdict on State Street Bank and Trust Co. vs. Signature Financial Group (1998), they were regarded as patentable subject matter. In order to avoid numerous infringements claims, the U.S. introduced prior user rights in this segment. Under these prior user rights, an accused infringer is not liable for infringement if he has used a patented business method at least one year before the patent application filing date.
Observing AIPLA’s testimonies within the national patent reform debate, AIPLA seem to pursue another strategy. Thus, AIPLA stands for adopting a first-inventor-to-file pretending that this first-inventor-to-file is equivalent to the worldwide first-to-file. In fact, the first-inventor-to-file system describes a hybrid form of two existing systems with a high significance of a one-year grace period. Several reasons corroborate the belief that AIPLA pursues a double strategy: First, the establishment of a first-to-file system equivalent to European standards would allow legal groups to offer their advisory services to a broad American clientele that is willing to invest in the European market. But on the other side, the adoption of a genuine first-to-file system is unfavorable for AIPLA members, because it would lead to the elimination of interference proceedings. Hence, if the U.S. adopts a first-to-file system, many lawyers will lose their ability to represent clients in interference contests. Thus, the hybrid version of two patent systems, the first-inventor-to-file system provides legal groups, which were once involved in profitable interference proceedings, another possibility. Instead of interference proceedings, so-called derivation proceedings will be created “to ensure that the first person to file the application is also actually a true inventor”. (Leahy 2007: 8) Because of the fact that a dispute will be resolved through this kind of proceedings, advisory capacities of well-paid lawyers will still be needed in the future. Not surprisingly, AIPLA insists on the establishment of derivation proceedings. A more detailed view on the American Bar Association - Section of Intellectual Property Law (ABA-IPL) reveals a similar picture. Like AIPLA, ABA-IPL opposes a greater patent harmonization by simply adopting the common European patent law principles. In this regard, ABA-IPL is convinced that the European patent system needs far more significant changes “than would be required to be made to U.S. patent law”. (LaFuze 2005: 3)

In conclusion, most stakeholders in the U.S. appear rather reluctant to accept a switch to the European first-to-file system. Moreover, apart from the IT industry, all stakeholders demand the adoption of a grace period in Europe as a precondition for any legal harmonization. Their expectations are completely at odds with most European stakeholders’ positions. In Europe, virtually no business organization supports the introduction of a grace period similar to the U.S. model. Industry’s resistance is expressed by a plethora of organizations. Europe-oriented representatives of research-based industries like EFPIA (European Federation of Pharmaceutical Industry Associations) or CEFIC (European Chemical Industry Council) are in the forefront of opponents, and they are backed by nationally based industry organizations that represent industry’s interests in respect of intellectual property regulation, e.g. TMPDF (Trademarks, Patents & Design Federation) or the British Technology Group (BTG).

The European research-based industry’s rejection of a grace period can largely be explained by differences between the U.S. and the European “social systems of innovation and production”. (Amable 2000) Unlike the U.S., basic research in Europe is largely performed by government-financed universities and research establishments, whereas most corporations’ R&D activities are focused on applied science and engineering. Contrary to the prevailing rhetoric, most public research entities have hardly embraced strategies to commercialize their results. (BMBF 2002; Schmiemann/Durvy 2003) Thus, corporations in Europe can free-ride on the publicly financed basic research results while at the same time developing market-sensitive innovations in-house. In respect of their employed scientists, firms mandate their intellectual property divisions to prevent publications which could be detrimental to later patent applications. All in all, the European research-based industry is not in need of a grace period. Rather,

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7 Interference proceedings are a form of specialized administrative litigation conducted by a panel of administrative patent judges, who are senior USPTO officials. Interferences proceedings are often referred to as “priority contests” meaning proceedings are designed to decide which party made its invention first. While there is a wide variety in the costs of patent interferences, this form of litigation could be a profitable business for patent attorneys.
its introduction could incite university and other government-financed researchers to seek patent protection for their inventions, which in turn would impair the industry’s chances of free-riding.

Industry organizations, whose constituencies are not dominantly engaged in research activities, hardly profit from the absence of a grace period. Nevertheless, they associate the risk of legal uncertainty with its introduction. (Strauss 2000) As yet, the application of an invention that is already published, but not patented, does not cause any problem for European corporations. But if a grace period was implemented, users would have to fear that an inventor seeks for a retroacting patent protection. (Galama 2000) That is why Business Europe and national peak organizations like the Federation of German Industries (BDI) are only willing to accept a grace period that recognizes third party rights. They claim that anyone who has begun to use an invention before a patent has been sought shall not be regarded as an infringer of the said invention when a patent is granted to the inventor at a later time. Furthermore, Business Europe insists on an issue-linkage between the introduction of a non-retroactive grace period in Europe and the implementation of a genuine first-to-file system in the U.S. From the European industry’s perspective, the U.S. reform proposal of a first inventor to file-system does not meet these requirements. (Interview 040) Thus, Business Europe and BDI close ranks with the research-based industry in order to oppose the introduction of a grace period in Europe.

At a first glance, one might assume that lawyers’ associations would be inclined to undermine the European industry’s position. As a grace period would increase the risk of litigation, they stand to profit from its introduction. Actually, the international associations like FICPI and AIPLA have recommended a harmonization with the U.S. legal system, and AIPI promotes a grace period since 1982. (Straus 2000) But as it has been previously shown, the European legal community is dominated by EPI, whose members are rarely involved in cases other than patent applications before the EPO. These advocates would not profit from a grace period, and an outright deviation from their clients’ demands would cause unnecessary distrust. Although to a lesser degree, the same holds true for national lawyers’ associations. Possibly, some members could win a few more cases, but their lobbying activities would seriously irritate most of their clients. The introduction of a non-retroactive grace period is more or less a matter of “take it or leave it”, and in contrast to the debate on administrative cooperation, it is hardly possible for lawyers’ associations to hide their own preferences under a stack of industry-favored propositions. That is why EPI, CIPA, FEMIPI (European Federation of Agents of Industry in Industrial Property) and the Scandinavian patent attorney’s associations adopt the same position as Business Europe. They recommend a grace period recognizing third party’s rights in an exchange for a genuine first-to-file system in the U.S.

Proton Europe, the pan-European network of knowledge transfer offices, is the only noteworthy protagonist of a grace period similar to the US model. Proton representatives claim that scientists generally prefer to increase their academic reputation by an almost immediate publication of their results. Without a grace period, knowledge transfer offices were not able to seek patent protection for the published inventions, and all attempts to commercialize the scientific results were doomed to failure. Proton Europe claims that “filing university patents without a grace period is like ‘playing soccer against Brazil without a keeper in the goal’.” (PROTON 2007) Although some public research organizations like the Max Planck Societies in Germany or the French CNRS (Centre National de Recherche Scientifique) agree with PROTON, the majority of universities even in Great Britain oppose the introduction of a grace period. Like most European corporations, they shy away from the increased litigation risks that are associated with the U.S. regulations. Furthermore, at least in Germany and the UK, most scientists are afraid that their knowledge transfer offices’ work finally stipulate an unwelcome commercialization of academic research. (BMBF 2002, Interview 040) Thus, Pro-
ton’s ambitions “to turn knowledge into money” are seriously undermined by those who “turn money into knowledge” (Chatzimarkakis 2007).

For the time being, any attempt to introduce a non-retroactive grace period in Europe is strongly contested by nearly all stakeholders. A change of heart would only be imaginable if the U.S. switches to a genuine first-to-file system. In the U.S., the situation appears mirror-imaged: Most American stakeholders are only willing to accept first-to-file system in an exchange for a genuine grace period in Europe. While minor differences in the actors’ perceptions on administrative harmonization are outweighed by international, regional and national lawyers’ associations’ lobbying activities, the opposed positions of industry stakeholders in the U.S. and in Europe seem to preclude any legal harmonization.

3 The impact of institutional embeddedness

Negotiations both on administrative cooperation and legal harmonization of patent legislation take place in an environment of institutionalized, semi-institutionalized and informal fora. The above-mentioned Trilateral Conferences as well as the sessions of the WIPO standing committee on the law of patents (SCP) are the most visible meetings, but questions of detail are also discussed in Business and Industry Advisory Committee to the OECD (BIAC). Furthermore, the U.S. have launched the “Alexandria process”, an unofficial round of all signatory states of the EPC, the U.S., Canada, Australia, and Japan. (Prinz zu Waldeck und Pyrmont 2006: 306 Fn. 3) All these meetings are regularly attended by representatives of patent offices. During the last years, however, European national governments increasingly show attention to patent law regulation, and national cabinet ministers frequently show up at the meetings. (Interview 002) The ongoing negotiations to “seek progress in the harmonisation of the different patent regimes” are strongly supported by the Chief Executive in the U.S and the European Heads of Government, and patent law harmonization has been declared a “Lighthouse Priority Project” at the last EU-U.S. EU Summit in 2007. (EU-US Summit 2007: 8) Given the top executives’ support, one could assume that officials of the U.S. and European patent authorities might overcome domestic institutional constraints and replace them by a “disaggregated” (Slaughter 2004: 5ff), functionally defined “sphere of authority” (Rosenau 1997). But evidence suggests that both administrative cooperation and legal harmonization still depend on the offices’ internal decision-making structure and their domestic institutional environment.

Among USPTO decision-makers, a deepened administrative cooperation with the EPO is stimulated by the prospect of an increased financial independence. For almost 200 years, the USPTO has been working as a branch of the American Department of Commerce. Under its umbrella, the USPTO has evolved into a unique federal agency. However, the USPTO appears set to become a self-sustaining organization. (Ludwig et al. 1997: 18) These ambitions are often linked with the discussion on an adequate funding of the USPTO. For many years, USPTO decision-makers repeatedly emphasize their view that pendency will be brought under control and the quality of patents will be approved when USPTO funding is secure and adequate.

For the USPTO it took a long time to become a self-financing agency. Prior to 1983, it was funded entirely from taxpayer funds paid into general treasury. A major law change took place in 1990 when the Bush administration, in the course of producing savings in the federal budget deficit, decided to stop financing the USPTO through public charges. Implementing the “Omnibus Reconciliation Act”, Congress hiked USPTO fees by 69% and transformed the USPTO from a “partially user-fee funded agency to an almost fully user-fee funded agency”.

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But, simultaneously, Congress put a damper on this newly-created self-reliance. For almost 15 years, a part of the fees collected by the USPTO had to be diverted to subsidize other government programs. Not surprisingly, the USPTO consistently emphasised that it needs full access to all user fees to “continue its transformation to a quality-focused organization” (Quinn 2004). From their viewpoint, fee diversion, and therefore a significant lack of money, is accountable for problems of recruitment for qualified patent examiners, which again results in extended pendency rates and a growing backlog (Griswold 1998). All in all, these circumstances are held responsible for patents of dubious quality. Since fiscal year 2005, the USPTO has the opportunity to dispose of all anticipated fee collections. The President’s budget for 2009 continues this (Dudas 2008).

Nevertheless, a broad administrative cooperation with the EPO is regarded to be a means of safeguarding this financial independence in the future. Within trilateral negotiations, European decision-makers always accentuate that the USPTO has to enhance the quality of its patents. Thus, on the national stage, the USPTO could exploit this quality argument to call upon Congress to ensure USPTO’s total control over all collected user fees instead of filling budget gaps by spending them. Furthermore, the quality argument could also advance USPTO’s continuous ambitions to get full fee-setting authority (e.g. eliminate, lower, consolidate, or raise fees by itself) in the future. For them, this authority is needed to respond to changing market needs, which is deemed to be all the more important in a harmonized patent system (Wienecke 2008). After all, for the USPTO, the overall self-management of its fees is a big step towards autarchy.

On the other hand, for the USPTO extended administrative cooperation among the two patent offices can be a welcome relief to defend against national stakeholders within national reform debates. As noted above, influential actors like the pharmaceutical and life-science industries strongly oppose the limitation of claims and they even seek to block new rules by suing the USPTO (Agres 2007). Within trilateral negotiations, USPTO decision-makers constantly promote a limitation of patent claims to tighten the examination process (Dudas 2005). By finalizing a decision regarding the limitation of claims within trilateral agreements, the USPTO can gain greater independence from national stakeholders, because internationally accomplished agreements may provide the USPTO with a political argument against stakeholders’ opposition.

In conclusion, the USPTO seeks to push for a deeper administrative cooperation with the EPO to assure its financial independence as well as to develop its decision-making authority. Furthermore, cooperation is deemed to be a political instrument for implementing reform elements (e.g. a limitation of claims) that encounter weak support among some American stakeholders.

As regards the European Patent Office, its institutional set-up also provides significant incentives for a deepened administrative cooperation with the USPTO. Legally speaking, EPO is the executive authority of the European Patent Organization, an international organization whose foundation is based on the European Patent Convention (EPC). Inventors who seek patent protection in the EPC signatory states (EU and EFTA members, Switzerland, Turkey and most other European countries) file an application at the EPO and determine the EPC countries for which protection is sought. If their invention meets the office’s criteria for patentability (novelty, inventive step and industrial applicability, Art. 52 and 53 EPC), inventors are granted a bundle of national patents that subsequently fall under the jurisdiction of the individual destination states. Thus, EPO serves as a centralized research and examination authority for the EPC member states, but the final decision on patent validation, e.g. by court decisions, remains within in the sphere of the nation state. Beside EPO, patent offices in the EPC member states grant national patents in their own right.
In respect of its day-to-day operations, EPO is entitled to develop its own regulations. Nevertheless, these rules must be approved by the Administrative Council (CA) in which all EPC member states are represented by officials from their national patent offices (NPO) and/or ministerial delegates. NPO are entitled to receive a share of the renewal fees derived from the EPO-examined bundle of patents. In consequence, there is an ongoing quarrel about competencies and revenue sharing between different NPO, but also between the Administrative Council in its entirety and the patent office’ executive. Whereas EPO claims that “member states have transferred competence to grant patents for their territory to an intergovernmental organisation” (CA/128/05: 2f), NPO insist that “(…), under the present EPC legal framework, the masters of the European Patent Organisation are the Contracting States.” (CA/65/05 e: 1)

Given the ongoing struggle between the Office and the Administrative Council, questions of an administrative and technical cooperation between the EPO and the USPTO prove as a win-win situation both for the EPO and the NPO. From the office’s perspective, a successful coordination with the USPTO confirms its political superiority vis-à-vis the NPO and serves as a pretext to encounter the most far-reaching demands for a re-delegation of competencies to the national level. (CA/94/05) Generally, the EPO presidium agrees with an extended participation of NPO in the trilateral process. (CA/42/05) However, it can be assumed that EPO will maintain its competitive information edge over the NPO, because the latter do not dispose of sufficient manpower to attend all working groups. Trilateral agreements on technical cooperation, e.g. on complementary IT infrastructures, will still favor EPO’s dominance over most NPO, because at least smaller national offices are not able to afford an adaptation to the new standards. Thus, technical cooperation between the EPO and the USPTO may encounter NPO demands for an equitable recognition – and subsequent remuneration – of national offices’ research results. (CA/61/05)

The Administrative Council’s members are awake to the danger that EPO-USPTO cooperation may serve as a pretext to undermine demands for more subsidiarity, but on the other hand, they stand to profit from an afflux of applications in terms of revenue sharing. (Harhoff 2006: 12) That is why they do not oppose an extended cooperation between the EPO and the USPTO. However, a handful of national patent officials are responsive to domestic claims that an overbroad patent protection may invoke anti-competitive effects. (Interview 032, 048) In consequence, they take a critical view on an enhanced cooperation and demand for efficient measures to maintain or even to raise the standards for patent eligibility. (CA/68/06) EPO officials cannot afford to neglect these demands, because they employ the quality argument in order to fend off some other patent offices’ demands for a re-delegation of research and examination activities. (CA/6/06: 7)

All in all, negotiations on an enhanced cooperation with the USPTO are pushed forward by the executive authority of the EPO, because such agreements are useful to encounter the Administrative Council’s demands for subsidiarity. At least to a certain degree, NPO representatives do not oppose the EPO strategy, because they expect an increased stream of patent renewal fees. However, the Contracting member states’ fear of a loss of control and their responsiveness to domestic critics restrict EPO’s mandate and define the limits of compromise. Whereas the institutional arrangement both of the USPTO and the EPO provides sufficient incentives for an enhanced technical and administrative cooperation, the patent offices’ embeddedness within the domestic political system forestalls a legal harmonization. Both in the U.S. and in Europe, the adoption of a first-to-file system resp. the introduction of a grace period requires the consent of superior legislative and executive bodies. As both political decision-making structures provide for numerous veto points, mutual adaptations are seriously hampered.
Like all federal statutes, patent law in the U.S. is made in a procedure of review and presentment within the bicameral system of the United States. Hence, the adoption of a first-to-file system, which would have an impact on harmonization of the two patent systems, has to be implemented through national law. By introducing the Patent Act of 2005, Congress began to tackle patent reform “with the most comprehensive change to U.S. patent law since 1952” (Halford 2005). Although Congress did not adopt this act, many of its elements were carried into the current bicameral Patent Act of 2007 (H.R.1908 & S.1145). In the House of Representatives, bills concerning patent law are reviewed by the Subcommittee on Courts, the Internet and Intellectual Property. The members of this Subcommittee are responsible for organizing public hearings concerning its subject matter as well as amending the first draft for adopting it within plenary.

Although representatives often follow their own values and basic beliefs, they make decisions in part by relying on the courtesy of their constituency and attending to the economic structure of their electoral districts. Additionally, they enter into a commitment with financial supporters who fund their political campaigns. The goal of being re-elected plays a decisive role regarding the political attitude of representatives. The sponsor of the current patent act within House of Representatives, Howard L. Berman, stands for an extensive patent reform that would particularly benefit high-tech industry. Hence, it is not surprising that Mr. Berman comes from California, in the immediate vicinity of Silicon Valley. On the other hand, the adoption of a legal act is facilitated by finding co-sponsors. Thereby, it is not unusual that some co-sponsors are likely domiciled in districts that are economically dominated by the pharmaceutical industry (e.g. the Democratic representative and co-sponsor of the Patent Act, Robert Wexler from Florida). Hence, in the very first stages of the drafting process, compromises are already needed to find a common ground. The probability of being caught between a rock and a hard place seems to be even higher for Senators. Their electoral districts are incomparably bigger and, in the majority of cases, the pharmaceutical as well as high-tech industry are both located in their districts. Thus, because Senators show a distinct liability on “their homeland’s overall economic welfare” (Eimer 2006: 17), they normally have to serve both interests and therefore they seem to be even more accessible for making compromises. Altogether, these compromises are responsible for the fact that an adoption by the U.S. Congress of a genuine first-to-file system with its harmonizing effects is hardly likely.

Furthermore, political representatives in the U.S. are highly dependent on fundraising to finance their political campaigns. Although it is improbable that pressure groups “are able to buy politics” (Hall/Deardorff 2006), it can be supposed that members of Congress try to make agreements without alienating their financial supporters. In this logic it seems easily comprehensible that a representative like Spencer Bachus (R-AL), who is apparently sponsored by the pharmaceutical industry, the winner of the “Medicare Award,” and considered to be a “Guardian of small businesses”, advocates the introduction of the one-year grace period in Europe.

Members of Congress usually form caucuses in response to political debates that have arisen in many areas. In times of an overwhelming scope of issues, different caucuses act as a resource for information. In both chambers of Congress, decision-makers must be well educated to be able to make informed decisions about issues they are normally not involved in. At the same time, members of the Subcommittee try to persuade other representatives according to their intentions. Therefore, caucuses fulfil a double function with regard to information and persuasion. To mention just a few, the Biotech- and Life-science Caucus, the International Anti-Piracy Caucus, the Internet Caucus and the Caucus of Economic Competitiveness actually expound the problems of patent reform. Because these caucuses are not dominated only by “patent experts”, patent reform is discussed on a broader level. Thus, within these caucuses, issues of market protection come to the fore. Many representatives use the forum of a
caucus to express their worries about the “continuing threat to U.S. intellectual property posed by overseas pirates” (Congressional Anti-Piracy Caucus 2007). It seems that, from their point of view, a broadly harmonized patent system has to offer safeguards (e.g. a grace period), so that U.S. competitiveness is not unilaterally burdened. In conclusion, a broad involvement of Members of Congress implies numerous issue-linkages, by which the adoption of a patent reform in both chambers depends on various compromises.

Taking a closer look at other potential veto players, it becomes clear again that a legal harmonization is also impeded by the executive. Although the Department of Commerce promotes a switch to the hybrid first-inventor-to-file system, it emphasizes that changes within the U.S. patent system have to be made “carefully und thoughtfully” (Wienecke 2008: 1). While praising the U.S. patent system as “the best in the world“ (Wienecke 2008: 1), the Department of Commerce discloses its rather protectionist view. For them, the renouncement of the American first-to-invent approach is subject to some conditions: “We believe that the effective date of the first-to-file provisions should be contingent upon a formal determination that specific progress and certain agreements have been reached in relevant international negotiations” (Wienecke 2008: 5). In other words, the Department of Commerce expects that the European Union will cooperate with regard to adopting, for instance, the one-year grace period. As the Department of Commerce may threaten the Congress to incite a presidential veto, its demands for concessions from the European side may further impede a legal harmonization.

All in all, representatives who are financially and/or ideologically backed by biotech- and pharmaceutical industries promote strong patent protection rights and the introduction of a one-year grace period in Europe. On the other side, representatives connected with the IT industry propagate an unconditioned patent reform with broad harmonization effects. Additionally, caucuses tend to link issues of patent reform with the broader topic of U.S. competitiveness, and the Department of Commerce stipulates that any reform should depend on European concessions. Under such circumstances, the adoption of a first-to-file system in the U.S. without the introduction of a grace period in Europe seems beyond reach.

In Europe, however, the legal structure of the European Patent Organization seriously impedes the implementation of a grace period, which would necessitate an amendment to the EPC. Before 2007, any attempt to amend the convention had required a ¾ majority of all contracting states on a diplomatic conference. (Klopschinski 2007: 556) In the course of the preparations for the last conference in 2000, the Contracting states had mandated the EPO to sound out the potential for a compromise. The EPO working group on patent law considered the problem (Official Journal EPO 2-2000: 47), but the anticipated disagreements between contracting states’ representatives prevailed. Finally, a recommendation to postpone the issue was forwarded to the Diplomatic Conference (CA/PL PV 14), and the involved cabinet ministers decided to reserve the question for a “second basket” at some indefinite future date. (MR/24/00: 108)

Generally speaking, France, Germany, Great Britain and the Netherlands push for the implementation of a grace period, whereas Portugal, Belgium, the Scandinavian and some middle-eastern European countries express their reservations. (Interview 040; Interview 048; Straus/Klunker 2007: 92f) Each national position depends on various factors. All EPC contracting states have to weigh up the pros and cons of a potential legal harmonization with the U.S. system. Countries, in which larger research entities stand to profit from a facilitated patent protection and/or where most corporations benefit from U.S. exports, are inclined to agree with a grace period, at least in an attenuated form. However, those countries among the EPC member states that predominantly import patented goods are supposed to face anti-competitive effects. (Interview 048; Adamczak 2006) Apart from pure economic reasoning, the contracting states positions’ are also shaped by political considerations. The more EPC
member states stress the principle of subsidiarity within the European Patent Organization, the less they are willing to make any concession in respect of a legal harmonization with the U.S. (Interview 038)

Given the variance of political and economical backgrounds within the European patent organization (ranging from Turkey to Germany), it is hardly surprising that its members are not inclined to find a common position. (Interview 047) In the near future, any agreement will become even less probable. Although the revised EPC, which has taken effect in 2007, mandates the Administrative Council to amend the Convention without convening a Diplomatic Conference, the ¾ majority of all signatory states has been replaced by the requirement of an unanimous approval. Furthermore, a one-year objection period has been introduced. (Klopschinski 2007: 558) As the intergovernmental character of the European Patent Organization has been strengthened, a compromise on contentious issues like the grace period seems even more unlikely.

The capacity of the European Union to mediate the diverging interests remains rather weak for the time being. First, the legal relationship between the European Patent Organization and the European Union remains ambiguous. According to the revised EPC, the Administrative Council is entitled to adopt directives of the European Union, but only after the implementation date for the Union’s member states has expired. However, EPO is under no obligation to do so. (Klopschinski 2007) Second, any attempt of the European Commission to gain a foothold in the EPO debates causes suspicion among EPC members that are not part of the EU. (Interview 048) Switzerland and other EPC signatory states are zealous to prevent a de facto take-over of the EPO by the EU. (CA/93/07)

Perhaps more important than the rivalries between EPO and EU, a common position is not likely to be achieved within the various institutions of the Union. The European Commission that usually acts as an agenda-setter is deeply split over a grace period. In the late 1990s, the General Directorate Research clearly favored its introduction (European Report 1998), and in the following years, the Directorate conducted a series of consultations and hearings in order to organize key stakeholders’ support. (EC Research Directorate-General 2003; M1/FM-DD D 2006) What is more, DG Research proactively supports PROTON (Schmiemann / Durvy 2003: 12), the only European actor in favor of a grace period (see section 2). All its initiatives notwithstanding, DG Research’s ambitions are held up by the skepticism from DG Enterprise and DG Internal Market, which are more responsive to industry stakeholders’ opposition. For the time being, the involved Directorates only agree that further discussions are needed. (SEC (2007) 412: 17) So far, the European Parliament is hardly involved in the debate on a grace period. In 1998, some MEP from the German Socialist Group had initiated a motion for a resolution. Although the Legal Affairs Committee adopted a report (European Report 1999), the Conservative group refused major parts of the resolution in the plenary. (Galama 2000: 9; EPP-ED 1999) But even if the European Commission found a common position acceptable for the EP, the Council’s approval would still remain very unlikely. Those states that oppose a grace period within EPO’s Administrative Council will certainly not give their consent in the EU. As yet, EU member states only agree on a non-retroactive grace period recognizing third parties’ rights in an exchange for a genuine first-to-file system in the U.S. (SEC (2007) 412/2: 24) Hence, the lowest common denominator position is miles away from the U.S. negotiating basis.

To conclude, neither the intergovernmental decision-making structure of the European Patent Organization nor the rather supranational institutions of the European Union provide any opportunity to overcome the stalemate between the supporters and the opponents of a grace period similar to the U.S. model. In the context of the EPO, all signatory stakes must be regarded as potential veto players. In the European Union, both the Commission and the Parliament are of two minds on a grace period. Due to their internal disputes, they are not in a
position to mediate between competing perceptions of the Union’s member states. But even if
the EU found common ground, it would be far from certain that all EPC signatory states sub-
scribe to a grace period. As its introduction is a prerequisite for the U.S. willingness to adopt a
first-to-file system, a legal harmonization between both patent systems remains very unlikely
for the time being.

Conclusion

The previous sections have affirmed the dichotomy between the U.S. and the European patent
doctorates’ rapprochement in respect of technical and administrative cooperation on the one hand
and a persisting divergence in patent law on the other. As regards the former, the advance-
ment is pushed by the U.S. and, at least to a certain degree, accepted by European negotiators.
In respect of the latter, a legal harmonization seems beyond reach for the time being. The U.S.
is only willing to adopt a moderated first-to-file system if a genuine grace period is imple-
mented in European patent law, and, vice versa, Europe will only accept a mollified grace
period in an exchange for a pure first-to-file system in the U.S. The present situation may be
described as a zero-sum game in which each side can only gain an advantage to the detriment
of the other.

Our empirical evidence allows for some plausible generalizations concerning the causal
mechanism for both the failure and the accomplishment of harmonization processes. In both
cases, there are international factors observable as they are described in neo-functionalist
theories and/or multi-level-governance approaches. First, negotiators from the U.S. and
Europe have established long-standing contacts. They share comparable professional back-
grounds and are confronted with similar problems. Hence, the development of a common
problem-solving perspective might be assumed. (Jensen 2000: 75f; Eberlein/Grande 2005:
99ff) Second, transnational actors or “epistemic communities” (Haas 1992), i.e. the interna-
tional lawyers’ associations, are increasingly oriented towards the international level of nego-
tiations. In the words of Ernst B. Haas, they can be expected “to shift their loyalties, expecta-
tions and political activities toward a new centre” (Haas 2006 [1968]: 114) and to stimulate
cooperation beyond mere Pareto-optimality. (Neyer 2006: 787f) Third, there is some evidence
for the emergence of a „disaggregated government network“ (Slaughter 2004: 5ff) in the field
of patent policies. Backed by their top executives, regulators from the U.S. and from Europe
meet each other in a plethora of formal, semi-formal an unofficial negotiation fora in order to
achieve a common policy strategy. But all international factors notwithstanding, patent poli-
cies are also discussed on a domestic level. Both in the U.S. and in Europe, there is an ongo-
ing ethical debate on the ontological and teleological aspects of the patent system. Various
actors still make their voice heard before their domestic patent offices and legislatures. Last
but not least, the final decision on patent reforms still remains in the U.S. and the European
institutional setting.

Taken together, there are domestic and international factors observable in respect of both
 techno-administrative cooperation and legal harmonization. As regards the former, both inter-
national and domestic factors are favourable towards an advanced cooperation. In respect of
the latter, however, a harmonization is brought forward by the international level of negotia-
tions but discouraged by domestic factors. Everything else being equal, one can conclude that
domestic configurations of ideas, interests, and institutions are apt to deliver a more sustain-
able explanation for the outcome of harmonization processes than variables associated with
the international level of negotiations. More precisely, our evidence suggests that the occur-
rence of international factors may be regarded as a necessary but not a sufficient condition for
the accomplishment of harmonization. It seems inconceivable that a techno-administrative
cooperation could be achieved without regulators’ transatlantic negotiations. For sure, the likelihood of the negotiations’ success is increased by transnational actors’ involvement and the institutionalization of international discussion forums. However, these factors derived from neo-functionalist and/or multi-level-governance approaches fail to explain the persisting divergences in the U.S. and the European patent law. The discrepancy between techno-administrative cooperation and legal rifts is only to be understood when domestic values, interest constellations and institutional configurations are taken into account. As these domestic “policy regimes” (Wilson 2000: 257f) have proved to withstand the international harmonization of patent law, one might assume that convergence-enabling factors on the domestic level can be interpreted as a sufficient condition for the fulfilment of harmonization efforts.

Yet, a caveat seems appropriate. As already mentioned, the conflicts which have been subsumed under the heading of legal harmonization may be regarded as a zero-sum game, whereas issues of techno-administrative cooperation may be interpreted as a positive-sum or cooperative game. Both U.S. and the European industry stakeholders generally support the techno-administrative cooperation because of a facilitated market entry, although they have to accept some minor disadvantages (claims limitation in the U.S. and more competitors in Europe). Hence, the nature of the conflict in question may provide for an alternative independent variable. One could argue that harmonization accomplishments depend on the prospect of cooperative gains, whereas their absence prevents a mutual rapprochement. Nevertheless, the rival hypothesis may be mitigated by our empirical findings. As it has been shown, a slightly diverging problem perception in Europe, protectionist ambitions of EU corporations and national patent offices’ distrust of the EPO executive do not only forestall a legal harmonization, but also define the limits of techno-administrative cooperation. Although a further cooperation would be more advantageous for both sides, its prospect does not suffice to overcome domestic reservations in Europe. Thus, the rival explanation that the expectation of cooperative gains sufficiently explains regulatory harmonization may be partially ruled out. Admittedly, more research and a more robust case selection would be needed to test the competing hypothesis.

But if, for the moment, we assume that domestic factors sufficiently explain the outcome of international negotiations, the question arises which elements have the greatest predictive power. At a first glance, our findings corroborate Gourevitch’s (1978) analysis. Domestic actors weigh up potential benefits from a harmonization against the costs resulting from an adaptation to new regulations. (Drezner 2007: 5) In the case of techno-administrative cooperation, benefits prevail both for U.S. and European actors. Lawyers’ associations in both economic spheres expect an accruing income by receiving more clients which are interested in patent protection on the other side of the Atlantic. As regards business organizations, the benefits for the U.S. industry are larger than for their European counterparts. That explains their comparably more enthusiastic approval of techno-administrative cooperation. In respect of legal harmonization, European research-based corporations on the one hand and U.S. small inventors and the American life science industry on the other are threatened by the most extensive adaptation costs. That is why these actors find themselves at the apex of opponents against any legal convergence.

Gourevitch’s second central variable, the domestic political system (Gourevitch 1978: 904), is also confirmed by our empirical results. Moreover, the effects of domestic institutions on international harmonization negotiations can tentatively be refined. Our findings suggest that national or regional administrative bodies will further harmonization processes, if they anticipate an increased degree of autarchy. As it has been shown, the USPTO attempts to widen its room for manoeuvre as well as its independence from national stakeholders by international agreements on techno-administrative cooperation. The EPO, however, expects to weaken the influence of national patent offices. But the administrative bodies’ leeway is restricted by the
domestic institutional environment. Neither the USPTO nor the EPO are legitimized to enact a legal harmonization on their own behalf. At this point, domestic political systems come into play. Patent reform proposals in the U.S. legislature are overshadowed by the veto powers of the executive. In Europe, patent policies are negotiated within an inter-governmental setting, in which each participating national government is vested with veto powers. Given the vital importance of innovation policies in the industrialized world, both the U.S. executive and European governments can be assumed to pursue a “techno-nationalist” strategy (Gilpin 2001: 108), by which patent policies are valued in terms of their impact on a nation’s innovativeness.

Generalizing from patent policies, one can conclude that the outcome of harmonization processes is strongly influenced by potential veto points within domestic political systems. (Immergut 1992) In the absence of veto potentials, a domestic political system’s responsiveness towards social actors can be regarded as an explaining factor for the outcome of international harmonization efforts. In the U.S., discussions on legal patent reforms are shaped by the legislature’s dependency on financially strong societal actors. In the case of antagonistic forces among powerful stakeholders, ambiguous compromises are the most likely outcome. In Europe, both a peak lawyers’ association (EPI) and the most prominent industry federation (Business Europe) stand to profit from an almost exclusive access to the competent administrative body. Although their influence is comparably weakened within the EU institutions, the EU decision-making structure seems unable to overcome their opposition against further-going harmonization efforts, at least as long as competing positions prevail within the institutions themselves. Thus, the institutional responsiveness both in the U.S. and in Europe may be regarded as the second most important sub-factor for the outcome of transatlantic harmonization efforts. In comparison, the top executives’ summit declarations and resolutions may be rather perceived as fluffy rhetoric.

Apart from the interplay between actors and institutions, our empirical findings suggest that cognitive schemes may be regarded as a potential predictor for the outcome of harmonization processes. Cognitive schemes or “policy paradigms” have an impact on both actors and institutions. On the one hand, they act as “a lens that filters information and focuses attention” (Wilson 2000: 257). Both in the U.S. and in Europe, practitioners, regulators, politicians and societal actors express diverging interpretations on the ontology and the teleology of the patent system. Even after numerous talks on an international level, these fundamental beliefs have remained unaltered and irreconcilable. Diverging conceptions of justice and equity in this policy field do not only impede a legal harmonization, but also explain the reluctance in respect of a further-going techno-administrative cooperation. Although the impact of policy paradigms is most visible in the actors’ behavior, they simultaneously shape the legal procedures in a given policy field. (Goldstein/Keohane 1993; North 1990: 6) If patents are perceived as the reward for an individual inventor’s intellectual labor, the abandonment of a first-to-file system appears highly unjust, and if patent protection is regarded as a quid pro quo for public disclosure, a retroactive grace period seems hardly defensible. Thus, the persistence of diverging cognitive schemes induces a path dependent development within a policy field (Hollingsworth 2000: 614) that may withstand international harmonization pressures.

To resume, our empirical findings suggest that neo-functionalist and multi-level-governance approaches fail to explain the outcome of harmonization processes. International regulatory debates, the emergence of a trans-national audience and the institutionalization of supranational negotiation forums may be regarded as a necessary but not a sufficient condition for a legal rapprochement. Domestic policy regimes consisting of policy paradigms, actors’ constellations and their interaction with the political system seem to have more predictive power for the likelihood of an accomplished harmonization. Thus, domestic policy regimes can be perceived as the most important enabling factor, and their compatibility seems to constitute
the necessary condition for a regulatory harmonization. Within each domestic policy regime, societal actors play a pivotal role in regulative policies. However, their influence depends on the administrations’ and legislatures’ responsiveness. Furthermore, societal’s actors impact may be constrained by potential veto powers of national governments’ executives. Additionally, our findings imply that both domestic actors and institutions seem to be influenced by cognitive schemes which may be derived from legal traditions. Apparently, the interrelation between these cognitive schemes, actors’ behaviour and institutional settings is hard to decipher. Thus, more research is needed to specify the relevance of domestic policy paradigms for the outcome of international harmonization process.

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