International Patent Law Harmonization—A Search for the Right Balance

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While international patent law harmonization has been an issue in progress since the conclusion of the Paris Convention in 1883, it is facing new challenges due to the increased use of the patent system in the knowledge-based economy and the growing sensitivity to the patent system's social and economic role for society. This paper addresses the historical development of international norm setting at the World Intellectual Property Organization (WIPO), including the ongoing negotiations on the draft Substantive Patent Law Treaty (SPLT), and highlights today's international challenges surrounding the international patent system. The paper further examines a number of features that appear to be fundamental for a well-balanced patent system serving society as a whole, while supporting innovation. It concludes with some suggestions that may be considered for any future work in this area in order to find common ground in terms of bringing closer the operational principles of patent law and practices at the international level.

Keywords: Patent law, international harmonization, Substantive Patent Law Treaty (SPLT)

The principal objectives of the patent system are not only to provide protection for inventors, but also to encourage innovation, to promote the development of technology and to foster its dissemination. Also, an effective patent system, allied to pro-active policy-making and focused strategic planning, will help a nation promote and protect its intellectual assets, driving economic growth and wealth creation. As a general rule, in order to strike a balance between the exclusive rights conferred by a patent and the interests of society at large, patent systems throughout the world seem to share at least the following four features. Firstly, the patent system must aim to reward only qualified inventions. Secondly, the invention must be sufficiently disclosed so that the public is in a position to share the knowledge of the inventor. Thirdly, the term of protection must be limited in time. And fourthly, the exclusive rights of the patentee should not extend to certain acts performed by third parties.

All patent systems comply, to a different extent, with the above mentioned four features and have been developed with the intention to meet those objectives and to find an optimal balance among various stakeholders operating in the specific social, cultural and economic environment of the country or region concerned. In earlier times, when the social, cultural and economic boundaries between nations were higher than nowadays, national legislators primarily concentrated on achieving the right balance within the patent system of their own country. The question, however, has become more complex in the recent past, since the era of splendid isolation seems to have been replaced by the era of global communication, and countries operate more and more on the basis of interdependence in terms of social, cultural and economic relations. These developments have not only increased the interest in the patent system as to its broader social implications, but also raised attention in respect of its effect from an international perspective.

In order for the patent system to meet the above-mentioned objective in this changing context, there are certainly a number of measures that can be envisaged at the national level. For example, in order to reduce the cost for obtaining a patent, national authorities may reduce fees for individual inventors and small and medium enterprises (SMEs), simplify the procedures in the patent office or provide assistance to applicants. On the other hand, there are issues that require international cooperation and solutions. For example, a grace period is unworkable in practice unless it is recognized at the international level, since a publication by the applicant prior to the filing (priority) date anywhere in the world may
defeat the novelty of the same applicant’s invention contained in the application filed with the patent office of a country which does not provide a grace period.

WIPO has a long tradition in promoting international cooperation and seeking international solutions, which dates back to the conclusion of the Paris Convention for the Protection of Industrial Property (Paris Convention) in 1883. Like its predecessor, BIRPI\(^1\), WIPO aims at fostering innovation and creativity at the international level. To this end, Member States of WIPO have concluded a number of international agreements providing international solutions in response to specific problems\(^2\).

**Historical Overview of International Patent Law Developments—From the Paris Convention to the Patent Law Treaty (PLT)**

**Paris Convention for the Protection of Industrial Property (Paris Convention)**

During the second half of the 19\(^{th}\) century, more and more countries recognized the value of the intellectual property system as a tool for technological and economic development. Consequently, many of them established a system for the protection of inventions at the national level. The industrial revolution stimulated a more internationally oriented exchange of technology and an increase in international trade flows, which led to the increased need to obtain intellectual property protection in foreign countries. Since no global international convention in the field of intellectual property existed at that time, it was rather difficult to obtain protection for industrial property rights in various countries of the world due to the differences in national laws. In particular, there was no guarantee that foreign applicants could enjoy the same protection on the same conditions as national applicants. Moreover, patent applications had to be filed roughly at the same time in all countries in order to avoid that a publication in one country destroyed the novelty of the invention in the other countries.

The lack of adequate protection for foreign inventions became particularly apparent when the Austria-Hungary government invited a number of other countries to participate in an international exhibition on inventions held in 1873 in Vienna. Participation was hampered by the fact that many foreign visitors were not willing to exhibit their inventions at that exhibition in view of the inadequate legal protection offered to the exhibited inventions.

This led to two developments: first, a special Austrian law secured temporary protection to all foreigners participating in the exhibition for their inventions, trademarks and industrial designs. Secondly, the Congress of Vienna for Patent Reform was convened. Following that Congress, the French Government convened an international conference with the view to determining the basis of uniform legislation in the field of industrial property, which led to the adoption of the Paris Convention for the Protection of Industrial Property (Paris Convention) in 1883\(^3\).

The Paris Convention, the first global intellectual property treaty, contained two advantageous features. The first feature consisted in providing advantages to the parties to the Paris Convention by way of an obligation to mutually accept certain advantageous treatments or recognizing certain actions taken by other parties. For example, Articles 2 and 3 provide the right to national treatment in each of the member countries and Article 4 establishes the right of priority. This principle has immensely facilitated the possibility to obtain adequate protection in foreign countries and to secure the right of applicants to obtain industrial property protection abroad. The second advantageous feature consisted in providing common rules in the field of substantive law establishing rights and obligations or permitting the member countries to enact legislation implementing those rules. In other words, some of those provisions had the effects of harmonizing national legislation of the member countries, and some other provisions expressly provided the freedom of member countries to regulate certain issues under their national legislation. For example, Article 11 provides common rules concerning the temporary protection in respect of goods exhibited at international exhibitions, leaving it to Member States to choose the means for implementing such protection in the domestic legislation.

Although revised repeatedly, the Paris Convention provides basic principles that still play a fundamental role in today’s international intellectual property system.

**Regional Developments and the Patent Cooperation Treaty (PCT)**

In the 1950s, discussions started within the Council of Europe concerning the creation of a European
The first part of the Diplomatic Conference for the conclusion of a treaty supplementing the Paris Convention as far as patents are concerned (draft 1991 Patent Harmonization Treaty) was held in The Hague in June 1991. The substantive provisions of the draft Treaty related to patent applications and examination procedures, standards for obtaining a patent, and rights and remedies granted by a patent. The discussion on this draft Treaty reached a deadlock in 1993 when it became apparent that, among other issues, two major problems, i.e., the worldwide introduction of a grace period and the “first to file” principle, could not be resolved.

Discussions resumed two years later in WIPO by taking another approach for promoting harmonization, namely, by limiting the discussions to formalities of national and regional patent applications. The discussion on the draft Patent Law Treaty (PLT) started in 1995 and was concluded in June 2000. In expressly excluding substantive requirements, the PLT is confined to the simplification of formality requirements set by national and regional offices and to streamlining of the procedures for obtaining and maintaining a national or regional patent. It includes matters such as requirements for obtaining a filing date, representation, signatures, changes in names and addresses, change in ownership, and conditions for extension of time limits and restoration of rights. Compared with substantive requirements, formality requirements are often considered less important requirements. However, since non-compliance with such requirements results in the refusal of a patent application, the importance of formality requirements cannot be underestimated. The PLT is expected to result in cost reductions and in avoiding loss of rights, since it provides predictable, uniform and simple procedures for applicants and encourages efficient operations within patent offices. Another feature of the PLT is that, as far as form and contents of applications are concerned, the PLT incorporates to a large extent the provisions of the PCT and its regulations so as to ensure uniform formality requirements for international applications (PCT) and national and regional applications (PLT).

Post PLT: Challenges
After the conclusion of the PLT, a considerable number of WIPO Member States expressed the wish to consider issues related to the harmonization of substantive requirements of patent law. This, however, does not mean that the Member States

Attempts to Harmonize National/Regional Laws and the Patent Law Treaty (PLT)

Although the PCT greatly simplifies the filing of patent applications at the international level, it expressly ensures the freedom of each Contracting State to prescribe substantive conditions of patentability under its applicable law. Further, a considerable number of applications are filed abroad not using the PCT system. In the mid-1980s, this led to the negotiation on a new global treaty that addressed many important patent issues, the harmonization of which was considered useful.

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wished to simply come back and re-discuss the relevant substantive provisions of the draft 1991 Patent Harmonization Treaty. The international situation in respect of patents has significantly changed since 1991. Therefore, although further substantive patent law harmonization is still considered a tool to address some of the critical issues, the immediate challenges that we are facing today are not the same as those in 1991.

Firstly, the conclusion of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) as a part of the Agreement establishing the World Trade Organization (WTO) in 1995 changed the perspective of the international intellectual property regime. Apart from the fact that the TRIPS Agreement obliges members of the WTO to at least comply with the prescribed minimum standards in all fields of intellectual property protection, it expressly recognizes the interaction between intellectual property protection and international trade in a global environment. It appears that the underlying causes of the TRIPS Agreement explain the two major challenges of today, that is, (i) an increased focus on the interaction between intellectual property protection and other social, economic and cultural issues, and (ii) increasing regionalization and globalization.

Today, intellectual property rights, in particular, patents, are linked even at the international level to public policy issues, such as, public health, protection of the environment, food security, and access to information and basic research. For example, there is a debate about whether aspects of the patent system contradict the principles of the Convention on Biological Diversity (CBD), or about whether the patent system prevents access to affordable essential healthcare. Some of those concerns raise questions as to the role of the patent system as such. Further, some attempt to utilize the patent system to achieve objectives going beyond the patent system. A good example of the latter is the requirement concerning the disclosure of the source of genetic resources and associated traditional knowledge in a patent application, where an invention is based on such resources or knowledge. The primary objective of such a requirement is to provide supportive measures to implement Articles 8(j), 15.5 and 15.7 of the CBD, which require prior informed consent with respect to access to genetic resources and fair and equitable sharing of benefits derived from the utilization of genetic resources and associated traditional knowledge. In any event, these questions can only be discussed in the context of the broader social and economical framework in which the patent system operates.

There are, however, other challenges that concern questions directed to the design and operation of the patent system. One of the criticisms expressed against the patent system is that the cost of obtaining patent protection is too high that the patent system is not affordable to everybody, offering no equal opportunity to access it. Not only the cost of obtaining a patent, but also the cost of maintaining the rights and the potential costs arising from patent litigation have an influence on the functioning of the patent system. In particular, the cost of protecting inventions abroad is often referred to as an obstacle to business. On the other hand, the increasing international dimension of trade flows requires protection of intellectual property assets beyond the borders of the inventor’s home country. This applies not only to multinational and large-scale business in developed countries, but also to smaller companies, since regional trade and economy also call for the protection of intellectual property beyond national boundaries.

The high cost of obtaining patent protection abroad stems, at least in part, from differences among national laws. In addition to differences of a more formal nature, such as the language of an application, differences as to substantive requirements, acceptable claim formats and the interpretation of claims oblige an applicant to ‘customize’ the application in accordance with the national/regional law. Such customization requires a thorough understanding of the relevant national or regional laws, and the time and effort spent on it in order to accommodate national and regional specificities are often considerable.

Nevertheless, the number of patent applications filed worldwide is increasing. Statistics show that the increase is seen not only in big patent offices, such as the European Patent Office, the Japan Patent Office and the United States Patent and Trademark Office, but also in Patent Offices of other countries such as Brazil, China and India. And patent offices have to cope with the increasing workload within their limited financial and human resources.

Another type of challenge concerns the quality of granted patents. Firstly, in relation to the quality of the search and examination of patent applications, it is
sometimes argued that patents are granted on inventions that do not meet the novelty and inventive-step requirements. Since it is hardly possible to ensure that all the patents granted by a patent office be valid, a mechanism to revoke invalid patents has been built into the patent system. However, the procedure for revoking a patent is expensive, particularly where a third party wishes to revoke patents issued abroad. Another criticism is that patents are issued in respect of inventions which have been known and used, for example, in the form of traditional knowledge, in other countries. In certain countries, an invention that is anticipated by knowledge which exists only in non-written form in a foreign country is considered to be novel. Consequently, unless it can be shown that the alleged inventor is not the true inventor, i.e., that he misappropriated the invention, or that other reasons that support non-patentability of the invention exist, it is not possible in these cases to revoke patents in respect of inventions that are not novel or do not involve an inventive step vis-à-vis non-written traditional knowledge used in a foreign country. A further challenge relating to the quality of patents concerns the development of new technology, such as information technology and biotechnology. Generally, during the period when a new technology is still emerging, it is difficult to assess the proper level of a person skilled in the art in that field of technology, and to clearly define how the conditions of patentability and the disclosure requirement apply in such a technical field. In addition, new technologies may raise specific concern about general public policy issues.

**Draft SPLT: Main Features and Status of Discussion**

Since a number of questions relating to national and regional patent laws had not been dealt with either in the TRIPS Agreement, in the PLT or in any other patent law treaty of global reach, following the conclusion of the PLT, the Standing Committee on the Law of Patents (SCP) took the decision, in November 2000, to go beyond the provisions of the PLT and to undertake discussions in relation to the harmonization of certain substantive patent law requirements, with a view to finding solutions, in particular, to the problem of the significant cost of obtaining international patent protection, and to facilitating cooperation among patent offices in respect of search and examination results in order to reduce the workload they face. The set of general items to be covered by a draft Substantive Patent Law Treaty (SPLT) should include, according to the SCP at the time, issues of direct relevance for the grant of patents, including, in particular, provisions relating to the definitions of prior art, novelty, inventive step (non-obviousness) and industrial applicability (usefulness), the sufficiency of disclosure of the invention in the application, and the structure and interpretation of the claims. The SCP further agreed to consider a number of additional issues related to substantive patent law harmonization, such as first-to-file versus first-to-invent, 18-month publication of patent applications or a post-grant opposition system, at a later stage.

During the subsequent SCP meetings, the draft SPLT underwent developments in different respects, following proposals by a number of delegations. For example, the draft SPLT as discussed at the tenth session of the SCP in May 2004 also includes provisions relating to exceptions to the applicability of the draft SPLT, amendments of applications and of granted patents, patentable subject matter, grounds for the refusal of applications and the invalidation of granted patents, and on the interface between the draft SPLT and other treaties like the PCT and the PLT. While the above discussions have led to some agreement of principle among delegations on a number of issues (such as the right to a patent, prior art, sufficient disclosure or the requirements of novelty and inventive step), the progressive broadening of the contents of the draft SPLT has also given rise to significant difficulties on other topics.

The first set of difficulties includes matters concerning claim interpretation, the ‘technical character’ of inventions, patentable subject matter and exceptions from patentability. Although these items are contained in most patent laws all over the world, the way in which they are implemented reflects the approach towards the patent system that different social and legal cultures have adopted. They are also closely linked to a question that goes to the very heart of the patent system: the achievement of the right balance between the patentee’s exclusive rights and the interests of the public at large.

The second issue concerns disclosure of the origin of genetic resources and associated traditional knowledge in patent applications where the claimed invention is derived from, or based on, such genetic resources or traditional knowledge. Some countries...
wish to include a requirement for such disclosure in the context of the draft SPLT, while some others feel that this issue is already properly dealt with in the context of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC), another forum at WIPO, and that the question should not be addressed at the same time by the SCP.

A third set of issues relates to concerns about the available flexibility in respect of national policies, for example, for measures to protect public health and nutrition, and to promote the public interest in sectors of importance to socio-economic and technological development, which is recognized under current international treaties, such as in Article 8 of the TRIPS Agreement. Being opposed to limitations to such flexibility being introduced in a future international instrument, a number of countries supported the inclusion of a provision in the draft SPLT that expressly stipulates that nothing in the draft SPLT would prejudice the above mentioned flexibility in respect of certain national policy choices. By the same token, draft provisions relating to the grounds for refusal of a claimed invention (draft Article 13) and the grounds for invalidation or revocation of a claim or a patent (draft Article 14) were viewed as problematic by some countries because those provisions provided a maximum list of grounds based on which the Contracting Parties could refuse an application or revoke a patent. A number of countries felt that such a closed list was not appropriate, and proposed the inclusion of a new provision that would allow a Contracting Party to also require compliance with the applicable law on various public policy matters.

These differences made the discussions in the SCP difficult, in particular, during its November 2002 and May 2003 sessions. For this reason, different groups of users and certain countries conducted discussions among themselves on the possibility of limiting the draft SPLT to a reduced number of provisions, including those relating to prior art, but excluding provisions of a more controversial or political nature.

Further to these developments, the United States of America, Japan and the European Patent Office submitted a joint proposal to the tenth session of the SCP, which took place from 10 to 14 May 2004, designed to focus on an initial package of priority items including the definition of prior art, grace period, novelty and inventive step. According to the proposal, once international agreement was reached on those prior art-related issues, discussions in the SCP could then focus on other issues which may include topics such as the disclosure requirement, claim drafting and unity of invention as well as some other related topics. The choice of this initial set of provisions was based on the following reasoning:

(i) the degree to which the discussions had matured and the extent of agreement on these points among the delegations;
(ii) the technical nature of these provisions and the absence of political implications;
(iii) the link between these provisions and the prospect of creating conditions for mutually exploiting search and examination results between offices, and
(iv) the advantages of harmonization on these points for all countries, including developing countries.

At the same time, substantive requirements, which may relate to national policy measures, such as patentable subject matter or the grounds for refusal of applications and for revocation of patents, would be left to national regulation. National laws would continue to determine the various policy measures required to achieve a balance between the exclusive rights conferred by a patent and the interests of the public at large.

While this proposal obtained the support of a number of delegations, a number of other delegations opposed it and emphasized the need to examine all the provisions of the current draft as a whole, taking into account their interdependent nature and recalling the importance they attached to other matters, such as the disclosure of the origin of genetic resources and traditional knowledge, public health, patentability criteria and general exceptions. In view of the diversity of opinions expressed, the SCP was unable to reach a consensus on whether it should give priority to a first series of provisions or on whether it should examine the draft SPLT as a whole. The Committee moreover failed to reach agreement on the suggestion put forward by the Chair of the session to submit the question of the SCP’s future work to the WIPO General Assembly (which is the highest organ of WIPO) in September 2004.
In application of the WIPO General Rules of Procedure, which allow for any Member State to request the inclusion of supplementary items on the draft agenda of the WIPO General Assemblies on certain conditions, the United States of America and Japan submitted a proposal to be added to the agenda of those Assemblies which, in essence, corresponded to the one they had already submitted to the tenth session of the SCP. After a lengthy discussion among Member States, the WIPO General Assembly adopted a statement which reads as follows:

“(i) The General Assembly considered the proposal submitted by the Delegations of Japan and the United States of America (document WO/GA/31/10). No consensus has been reached thereon.

(ii) It was decided that the dates of the next Standing Committee on the Law of Patents (SCP) should be determined by the Director General following informal consultations that he may undertake”.

This text reflects the fact that, while many delegations expressed agreement for some form of international harmonization of patent laws, not all were prepared to proceed with the four issues as proposed by the USA and Japan.

International Patent Law Harmonization: Heading Towards the Right Balance?

The history of the international development of patent law shows that international harmonization per se has never been the ultimate goal or an end in itself. International harmonization has always been a tool to respond to challenges that require international solutions. For more than a century, the Member States of WIPO (and its predecessor BIRPI) have addressed a number of international challenges and, in certain cases, found that international harmonization through international instruments, either by way of harmonizing national and regional laws or by providing advantageous mechanisms among Contracting Parties, was the best way for solving particular problems of an international dimension. In the field of patents, there are five Treaties administered by WIPO: the Paris Convention, the PCT, the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, the Strasbourg Agreement Concerning the International Patent Classification and the Patent Law Treaty. Each of these treaties has its specific objectives, and despite the limited extent of harmonization that those treaties achieved, they are generally considered to provide benefits to their Contracting Parties.

Since international harmonization is a means of addressing a problem rather than an end in itself, it may not be appropriate to argue whether international harmonization is good or bad in itself. The essential questions to ask are: what are the international challenges that need to be addressed collectively, and with this in mind, what should be harmonized and how should it be done? When starting the discussion on the draft SPLT in November 2000, Member States identified various challenges. Simply put, these challenges referred to the cost of patent protection, to scarce resources and an increasing workload in many offices, and to the quality of patents granted. They formed the starting point for the draft SPLT. Although the negotiations on the draft SPLT are currently subject to further consideration, those common challenges are still relevant.

There is no doubt that the multilateral framework should be balanced and leave flexibility for national policy choices. Requirements such as novelty and inventive step are mostly technical in nature. Although different languages may require different styles of expression, the requirement that an invention be described in such a way that it is sufficient for a person skilled in the art in a particular field of technology is also technical in nature. Cultural and social differences among the States may have less effect on the determination of those requirements. On the other hand, these differences clearly affect the determination of what is patentable subject matter. For example, divergent views have been expressed on patenting plants and animals, both in the SCP and in conjunction with the review of Article 27.3 (b) of the TRIPS Agreement. Another example is the question whether an invention under patent law should be required to have a technical character or not. Different answers to this question can be envisaged depending on what kind of role is attributed to the patent system within the wider context of national, social and economic policies. These different answers could lead to different positions regarding patent protection of, for example, software-related innovation and business methods from one country to another.

Further, when considering the flexibility in national policy choices, a distinction needs to be made between the granting of patents and their exploitation.
The granting of patents is a decision taken by an administrative/legal authority on the basis of mainly technical criteria. The exploitation of patents has a different dimension. Here, the focus is more on striking a balance between the exclusive rights conferred by a patent and the interests of the public at large in order to achieve the objectives of the patent system. National laws provide for various policy measures to strike this balance having regard to the country’s social and economic development. For example, all national laws provide limited exceptions to the exclusive rights conferred by the patent, taking account of the legitimate interests of both patent owners and third parties, including the general public. Many national laws provide for the grant of compulsory licenses in specified circumstances. The choice between national and international exhaustion of rights as well as the admissibility of parallel imports is often considered in conjunction with competition policy and restraints on the transfer of goods in the market. The importance of flexibility in such national policy choices is also confirmed by the Doha Declaration on the TRIPS Agreement and Public Health.

Another point that needs to be borne in mind is that, although scientific and technological innovation improves conditions of life and welfare, and the patent system is widely recognized as an important tool for promoting such innovation, the patent system alone cannot generate scientific and technological development nor can it regulate the whole range of science and technology-related issues. A balanced patent system can, in conjunction with other measures, be supportive of improved living conditions, but it is also limited in respect of its possibilities for addressing broader economic and social problems.

Against this backdrop, if, in the near future, an international agreement on patent law harmonization is to be considered a useful instrument to respond to at least some of the challenges of today, it should preferably take into consideration the following points. Firstly, an international agreement should not affect the sovereignty of Member States in terms of making decisions on granting patents or on the validity of patents. Rather, providing a positive environment for the mutual utilization of search and examination results among patent offices would be useful to all countries in order to maintain a credible and effective patent system. Countries would not be obliged to recognize and accept such results and would continue to grant patents and to decide on the validity of patents on the basis of their national law. Secondly, countries should be free to choose their own policy measures in accordance with current international instruments. In particular, an international agreement should not limit the freedom of member States as provided in the TRIPS Agreement and the Doha Declaration on the TRIPS Agreement and Public Health. Thirdly, an international agreement should be balanced. It should reflect an international common understanding responding to the various current challenges and its benefits should be shared by all Member States.

At the time when the Paris Convention was concluded in 1883, representatives from 20 countries were involved. Currently, WIPO has 180 Member States with different levels of development, different social and economic priorities, and different cultures. A balanced international solution should take into account such differences. On the other hand, innovations are international and global in nature. Researchers and innovators are active all over the world. The usefulness of inventions is not confined to national boundaries. Inventions have the potential to enrich people’s lives everywhere, and the potential benefits of innovation are applicable to all.

In order for the public to enjoy the concrete results of science and technological advance, technology must mature to concrete applications. Researchers therefore need an environment that allows them to achieve this development process from basic science to concrete applications. A balanced patent system can contribute to establishing the necessary environment and conditions for research to fulfill its role and function. For example, patent information can be a powerful tool to avoid duplication of research work or to identify technology that is already in the public domain. Making effective use of patent information and developing practical tools to that effect must be one of the top priorities of international technical cooperation in the area of patents. Further, improving the cooperation between research institutions and industry is another important issue. From an intellectual property point of view, reviewing the patent management and establishing a patent strategy and infrastructure that facilitate obtaining external funds and the conclusion of licences would assist such cooperation. In addition, in many countries, in order to avoid patents getting in the way
of research and development activities, using a patented invention for the sole purpose of experimentation or research is expressly excluded from the acts that constitute infringement of a patent. Despite those positive contributions, one of the major criticisms expressed by researchers relates to the high cost of patent protection, in particular, international protection. This is particularly relevant for researchers in developing countries.

Finally, the question as to how to harmonize should be considered. In the field of patents, up to now, all international agreements under the auspice of WIPO have been concluded in the form of international treaties. However, there are other forms of international norm-setting, for example, what is often called ‘soft law’. Soft law generally refers to norms that are legally non-binding, but that the concerned parties, nonetheless, agree to follow in practice or to which they at least subscribe. In general, a soft law instrument is characterized by greater flexibility compared with the time-consuming and formalized treaty making process, and thus, it may be better suited for responding to the needs of fast-paced development. In the field of trademarks, the Assemblies of Member States of WIPO have adopted three Joint Recommendations, which have proved to be useful alternatives to international treaties. Although the feasibility of the soft law approach depends on the contents and objectives of such law and the procedures of its adoption, possible options with respect to this type of alternative instruments (or alternative combinations of instruments) may be further explored in the future.

**Conclusion**

An efficient and well functioning international patent system needs to promote innovation and the disclosure and dissemination of patent information as well as to serve the public interest, by aiming at achieving a system which, although relying on the grant of private rights, ensures that those rights translate into benefits to the public at large. Such an international patent system should be characterized by a number of features, among which the following appear to be particularly relevant. In order to maintain an ongoing cycle of innovation, the patent system should remain an instrument which attracts investment into the creation of innovation. The system needs to be sufficiently flexible as to support emerging new technologies and to be capable of ensuring an adequate return on investment. On the other hand, society needs to be protected from a flood of exclusive rights that might prevent the use of technology or its application for research purposes, and to have access both to the patent system and, at least in certain situations, to the use of patented technologies. A well functioning patent system must prevent the misappropriation of matter already in the public domain, improve the quality of patents, use resources in a rational way, and be flexible enough to accommodate different national policy measures required to achieve a balance between the exclusive rights conferred by a patent and the interests of the public at large (for example concerning health matters and access to medication).

The goals referred to in the previous paragraph, among others, have been at the very heart of WIPO’s work on harmonization of substantive patent law during past years. The expected benefits of that work would be, for example, the following:

—A harmonized definition of prior art would avoid patents being granted on subject matter identical to, or obvious from, subject matter known or used elsewhere (including traditional knowledge).

—the introduction of a uniform grace period would be beneficial, in particular, to private inventors and SMEs, who are often not familiar with patent law.

—Establishing common standards for the drafting of applications and the determination of patentability would improve the quality of granted patents and reduce the number of “bad” patents granted.

—Search and examination reports established on the basis of agreed concepts would increase the capacity of offices to share work and to rely on the work product of other offices, thereby contributing to a more rational resource allocation, while still leaving the decision on grant or refusal to each office.

—Flexibility of the Member States regarding the rights conferred by a patent (for example, exceptions to such rights, compulsory licences and enforcement) would be left to national legislation. National laws would continue to determine the various policy measures to achieve a balance between the exclusive rights conferred by a patent and the interests of the public at large.
In addition to the interests of right holders and society, one of the major components of a balanced patent system are the interests of research, the fruits of which need to translate into concrete advantages for society. The above-mentioned expected results from international harmonization would, obviously, also benefit research, in that (i) the international patent system would become more accessible, transparent and cost-effective, (ii) a common prior art basis would create more certainty on existing and conflicting rights and, simultaneously, on areas free of rights, and (iii) the strict application of patentability standards, such as novelty and inventive step, would contribute to increasing the quality of granted patents, thus removing some unjustified impediments to research. At the same time, the system would leave enough flexibility to countries to decide whether granted patents are exploited in a manner conducive to those objectives.

Achieving common ground in terms of bringing closer some operational principles of patent law and practice at the international level is not an easy task, since some of the interests involved appear to be contradictory. Nevertheless, the following suggestions may be considered for future work in this area, as they may both improve the international patent system and safeguard the interests of the various players, and thus be shared by many representatives of the different interested stakeholders described above:

—As a first step, a distinction should be made between aspects which lead to, or have an impact on, the grant of patents on the one hand and the phase relating to the post-grant exploitation of patents on the other. It appears that many countries wish to safeguard certain freedoms allowing them to implement their policy choices relating to the use of granted patents (e.g. as regards the grant of compulsory licences in the area of pharmaceutical products). Therefore, measures concerning the exploitation of patents in the post-grant phase, including measures ensuring that patents do not unreasonably hamper access to, and exchange of, information, in particular, for research purposes, might be left outside the scope of patent law harmonization.

—Second, those aspects of the patent system whose greater convergence would clearly contribute to making the system more clear, more simple and easier to access, especially for applicants with limited resources, could be identified and examined as to their potential for improvement.

—Third, those principles which could contribute to the grant of higher quality patents, and thus reduce the number of potentially invalid patents, and which would avoid the appropriation of matters already in the public domain, could be considered for further alignment. This would bring the patent system closer to its original goals, namely, to protect only truly new and inventive developments.

—In addition, discussions on certain concerns relating to the economic and social impact of the patent system and the directions it is taking, may be taken up for identifying these issues that may be addressed through the patent system and those that are extraneous to that system.

To sum up, it seems that a multilateral, modestly ambitious approach directed towards achieving a balanced international system would better serve the interests of the international community than opening the door to unilateral and bilateral measures which might bear the risk of reducing the ability of less powerful players to defend their legitimate interests. History reveals that international patent law harmonization has been achieved step by step. Although each step may be small in itself, added together, they will over time contribute to achieving a patent system that serves society in general while continuing in particular to support the cycle of innovation.

References
1 The United International Bureaux for the Protection of Intellectual Property (BIRPI) were established in 1893. Following the entry into force of the Convention establishing the World Intellectual Property Organization, the BIRPI became WIPO in 1970
2 WIPO administers 23 international treaties (15 on industrial property and 7 on copyright, plus the Convention establishing WIPO)
4 For example, the African Intellectual Property Organization (OAPI), the African Regional Industrial Property Organization (ARIPO), the Eurasian Patent Organization (EAPO) and the Cooperation Council for the Arab States of the Gulf (GCC). The Andean Community countries (Bolivia, Colombia, Ecuador, Peru and Venezuela) adopted decisions which contain, inter alia, uniform substantive and procedural patent provisions
5 The text of the PCT and other related information are available at: http://www.wipo.int/pct/en/
Among the patents which were granted to non-residents, 29% in China, 38% in Germany, 34% in Japan and 11% in the United States of America were patents granted with respect to international applications filed under the PCT system designating/electing the Offices concerned (in the case of Germany, this includes Euro-PCT applications designating Germany). (source: WIPO Industrial Property Statistics, 2001)

Records of the Diplomatic Conference for the conclusion of a treaty supplementing the Paris Convention as far as patents are concerned, WIPO Publication No. 351

WIPO document P/A/XX/1


http://www.biodiv.org


WIPO document SCP/4/2. In addition, the SCP discussed a possible outline for a future treaty and agreed that a way of moving forward with the treaty would be to pursue three levels of drafting: a treaty, which should be as short as possible; regulations, which could be changed by the Assemblies as times changed; and practice guidelines, which would offer guidance as to how an application should be treated by an office. The Treaty and Regulations would be drafted towards the goal of harmonizing law, and permitting a patent application to be drafted along with the claims so that they would be acceptable in all offices that adhered to the treaty. The practice guidelines could be built, step-by-step, to suggest harmonization solutions concerning office practices

WIPO documents SCP/10/2 and 3

All the working documents, including the draft SPLT and the reports of the SCP meetings are available at: http://www.wipo.int/meetings/en/topic.jsp?group_id=61

Draft Article 2(3) of the SPLT

Such discussions took place between October 2003 and February 2004 in four different fora: (i) as part of the trilateral cooperation between Japan, the United States of America and the European Patent Office; (ii) within the International Association for the Protection of Intellectual Property (AIPPI); (iii) within the International Federation of Intellectual Property Attorneys (FICPI) and (iv) during a meeting of 24 non-governmental organizations (cf. WIPO document SCP/10/8)

Proposal of the United States of America, Japan and the European Patent Office contained in WIPO document SCP/10/9

WIPO document SCP/10/10

WIPO document WO/GA/31/10

Following the conclusion of the 2004 WIPO General Assembly, the Director General of WIPO convened an informal consultation meeting concerning future sessions of the SCP on 16 February 2005, in Casablanca, Morocco (further details, http://www.wipo.int/edocs/prdocs/en/2005/wipo_upd_2005_241.html. The eleventh session of the SCP will be held during 1-2 June 2005

For example through the PLT

For example, claiming priority under the Paris Convention, or the PCT system

Declaration on the TRIPS Agreement and Public Health adopted on 14 November 2001 at the Doha WTO Ministerial Conference (WT/MIN(01)/DEC/2)