
Faryan Andrew Afifi

Recommended Citation
Available at: http://digitalcommons.lmu.edu/ilr/vol15/iss2/5

I. INTRODUCTION

Patent protection has increasingly become a subject of international concern for industries. With the advancement of technology and streamlined access to international markets, inventors have a vital interest in protecting the propriety of their inventions in foreign countries. Due to the varying regulation of patent law in different countries, however, an inventor who receives a patent in one country is neither assured of obtaining a patent for the same invention in another country, nor of having the first patent enforced there. Such discrepancies have caused many companies to lose money in foreign markets where they mistakenly believed they had a valid patent. Instead, local companies are free to compete with the inventor. The foreign inventor is thus at a disadvantage.

Although the explosion of technology and the increased trade flow among countries have escalated this problem, the need for international patent protection has existed for a long time. In 1883, the Paris International Convention for the Protection of Industrial Property ("Paris Convention")¹ became the first major international agreement to outline the need for coordination of patent rights between the different countries.² The Paris Convention established national treatment of patents, a twelve month priority period, a deferral of penalties for nonworking patents, and approval of subsequent agreements for


cooperation among the member states. These were critical points in establishing a foundation for international patent cooperation, but they are of little assistance in addressing the needs of modern industry. For instance, the various patent systems now in existence require an inventor to file patent applications in every country where he seeks patent protection. This duplicative effort provides for a very inefficient system. In addition, the Paris Convention failed to adequately define the scope of protection afforded to patents, leaving the resolution of such questions to the individual states’ national legislation. Further, the Paris Convention failed to specify the patentability of various substances and processes.

In response to these needs, the United Nations established the World Intellectual Property Organization (“WIPO”) in 1967 to perform the administrative activities of the Paris Convention, to protect the rights of inventors, and to harmonize national legislation in the context of intellectual property protection. WIPO has since attended to many of the international patent community’s needs.

Many problems still remain, however, including conflicting patent laws among signatories of the Paris Convention and duplicative activities of numerous patent offices around the world. These issues need resolution, and an international body such as WIPO can address these issues. An international patent community needs to be better defined. Recently, however, private concerns, who have a growing economic interest in establishing a more uniform international patent system, have supplied the driving force for quicker and more complete coordination of the many territorial patent systems. Further, the growth of technology in areas such as biotechnology has stimulated such coordination.

Advanced technology and streamlined international markets are relatively new developments. As a result, few patent systems have adopted any solid regulations for patenting products in areas such as

6. Id. at 12. The Paris Convention merely states that industrial property is to be construed broadly. The Paris Convention did include agriculture, natural resources, and natural products, but did not further specify whether foodstuffs, stimulants, drugs, or processes are within the broad reading of "industrial property." Id.
biotechnology. These circumstances present WIPO with an opportunity to establish a framework so that different countries will not diverge on different paths in their patent requirements. Further, new markets in the Soviet Union, Yugoslavia, and the former Eastern European bloc provide an even greater incentive for WIPO to administer an international patent harmonization scheme.

This Comment will discuss the need for WIPO to immediately address the existing problems in patent law and the international patent system. First, the discussion will focus on WIPO’s potential role in dealing with these problems. Then, it will cover the history of international patents and the role of patents in society. This Comment will also discuss the current flaws in international patent law and analyze how these flaws prevent existing territorial patent systems from completely fulfilling their purpose. Next, the Comment will address the economic and political events that mandate WIPO’s instant leadership in unifying and harmonizing a workable international patent system. Finally, this Comment will conclude by analyzing several existing multinational treaties and aspects of these treaties that serve as models for future harmonization schemes.

A. WIPO Is the Most Logical Organ to Implement International Harmonization

The United Nations created WIPO specifically to handle harmonization matters. Since its creation, the international patent community has considered WIPO to be a source of guidance. WIPO serves two general purposes: (1) coordination of the basic activities established by the Paris Convention, and (2) promotion of all intellectual property rights protected under the Paris Convention, as well as those protected by special agreements. The creation of WIPO transferred the administrative responsibilities of the international patent system from the Swiss Government and BIRPI (Bureaux Internationaux Reunis pour la Protection de la Propriete Intellectuelle) to the member states of the Paris Convention. WIPO’s role was not only to administer the Paris Convention and the Union members, but also to promote the protection of intellectual property on a worldwide

9. WIPO Convention, supra note 7, art. 4.
10. ANDERFELT, supra note 2, at 259.
Since international harmonization of patent law promotes the protection of intellectual property worldwide, the goal of harmonization falls well within WIPO's jurisdiction.

Many developing countries, however, contend that WIPO cannot, and should not, operate as the exclusive competent body in the field of patent law. Since many of these developing countries are not currently members of the Paris Union, they have no voice in WIPO, preventing them from exerting any influence on international patent developments.13 These concerns were much more prevalent in the early stages of WIPO's existence than they are now, as 126 countries have ratified WIPO since its inception.14 Further, WIPO has become widely accepted by the international community as the principal source of reform in international patent law. For example, the Soviet Patent Office specifically consulted WIPO when considering making changes to its patent laws.15 The role of WIPO in leading reform in the international patent field has solidified considerably since its creation in 1967. Correspondingly, WIPO is best suited to carry out any necessary changes in harmonizing international law.

II. Historical Background

The historical background of patent law is helpful to understand the current problems patents present within the international community. As early as the fourteenth century, the Italian cities of Florence and Venice established patents to balance the interests of the inventor and the public.16 Until recently, many believed that patents originated with the English Statute of Monopolies of 1623.17 In fact, the Venetian patent law was already over one hundred years old when

12. Id. at 682.
13. ANDERFELT, supra note 2, at 264. Anderfelt points out that the only way for such states to exert any influence in the international field would be to join the Paris Union and accept the present system. Id. However, increasing membership of the Paris Union may be in the best interests of the international community since it is the first step toward achieving true international patent harmonization. Consequently, even though Anderfelt warns against allowing exclusivity of WIPO in the international field, this may provide the incentive to encourage more states to join the Paris Union, and harmonize international protection.
16. ANDERFELT, supra note 2, at 3-4.
the English Statute of Monopolies was first documented.\textsuperscript{18} The Venetian Patent Act reflected many of the elements of current patent laws.\textsuperscript{19} It recognized the incentives for establishing a patent regime: (1) the utility of patents to society; (2) the encouragement of inventiveness; (3) the refunding of the costs incurred by inventors; and (4) the inventor's right to the fruit of his mind.\textsuperscript{20}

A common element of all these early patent systems was the desire to serve the interests of the state. Both the Venetian and English systems required the use of patents within the state. Further, both systems forbade an inventor from raising prices too high or from being "mischievous to the state."\textsuperscript{21}

The interests of the inventors, on the other hand, were not considered until the American and French Revolutions. These events established the concepts of the inherent and inalienable rights of an individual.\textsuperscript{22} The concept of patents as private property emerged as one such inalienable right.\textsuperscript{23} Eventually, the United States became a leader in developing a patent system which would accommodate the individual's patent rights.\textsuperscript{24}

By the nineteenth century, enough nations had developed patent systems so that international coordination became possible.\textsuperscript{25} However, the real need for international patent cooperation did not arise until the industrial revolution in the nineteenth century.\textsuperscript{26} In response to this need, the Paris Convention created an international framework for protecting industrial property. The Paris Convention, however, only afforded an applicant certain minimum rights when filing an application abroad.\textsuperscript{27}

\begin{footnotesize}
\begin{enumerate}
  \item The English Statute of Monopolies was initially believed to have originated in England in the sixteenth century and other countries imitated the English system. \textit{Id.}
  \item Anderfelt, \textit{supra} note 2, at 3.
  \item Id.
  \item Id. at 4.
  \item Id. at 9.
  \item Id. at 11.
  \item Id. at 17-25. Anderfelt discusses the different theories under which the private property doctrine evolved. These theories include natural law doctrine, with its emphasis on the inherent rights of inventors, and collectivist doctrine, with its focus on the social utility of patents. \textit{Id.}
  \item Id.
  \item Id.
\end{enumerate}
\end{footnotesize}
level of patent treatment among countries, it fell far short of bringing about "harmonization of law" in the Union's Member States. Under the Paris Convention, the states remained at liberty to shape their patent granting procedure. The states could also determine the substantive law and the subjects that would be patentable. In response to the need for further harmonization, the United Nations established WIPO in 1967. In its twenty-four years of existence, WIPO has achieved some harmonization of the international patent system, but it has yet to provide a uniform system that all countries will follow.

Some countries have sought alternative ways to harmonize the international patent system. To provide some degree of uniformity in their patent laws, various countries have banded together by treaty to establish a patent cooperation standard for all member countries. The European Patent Convention and the Community Patent Convention are examples of such efforts among industrial nations in Europe. The European Patent Convention established an office that grants a single patent, referred to as a European Patent, which is valid in all the party nations that the applicant designates. The Community Patent Convention takes this one step further, allowing an applicant who designates a European Economic Community ("EEC") member as a target to obtain a patent covering all EEC countries. These progressive movements in the EEC resolve many problems among EEC member states facing the international community. Similarly, some African states have banded together to minimize both the costs of a patent system and the resulting administrative burden. These states joined the Afro-Malagasy Convention, which was signed in 1962 and entered into force in 1964.

28. Id.
29. Id.
30. Id.
31. WIPO Convention, supra note 7.
This historical background indicates the trend in patent law over the last several hundred years. Patent law initially emerged as a territorial concern to meet the needs of the state, but has become a subject of international scrutiny. The Paris Convention and the establishment of WIPO were indicators that the international community realized the potential benefits of harmonizing certain aspects of patent law. Still, the Community Patent Convention and the Afro-Malagasy Convention indicate that the international community seeks harmonization which to date WIPO has been unable to provide.

III. PURPOSE OF PATENTS

Many of the reasons for the development of patent systems in the old Venetian and English patent acts are still valid today. These include serving the interests of society and advancing technology. However, the main reason for a patent system is to encourage invention and innovation.\textsuperscript{37} The need for encouragement exists because without it inventors would not undertake the risks and costs of pursuing an invention. Incurring such costs would not be worthwhile if others could use the invention and reap its profits.\textsuperscript{38} Without protection, no one would spend the time and money required to invent and the only inventions would be "those made by chance or by persons impervious to financial losses."\textsuperscript{39} The patent system gives the patent

\textsuperscript{37} PAUL DEMARET, PATENTS, TERRITORIAL RESTRICTIONS, AND EEC LAW 3 (1978). Demaret distinguishes between invention and innovation in the field of economics. Invention is defined as technical knowledge not ready for commercial use while innovation is the act of bringing a new idea, not just a technical concept, to commercial exploitation. Demaret modifies this definition to state that an innovation is an invention that has become economically useful. \textit{Id.} at 5. He justifies this definition based on the reality that once a new idea has been devised, more investment is required before the idea can be successfully marketed. \textit{Id.}

Several authors espouse other justifications for a patent system, considering them to be just as important reasons as innovation and invention. \textit{See} FRITZ MACHLUP, AN ECONOMIC REVIEW OF THE PATENT SYSTEM STUDY No. 15, SUBCOMMITTEE ON PATENTS, TRADEMARKS AND COPYRIGHTS OF THE COMMITTEE ON THE JUDICIARY OF THE U.S. SENATE, 85th Cong., 2d Sess. 20-43, 52-55 (1958). Some authors believe that the natural property right theory is the driving force for a patent system. They claim the idea, upon its creation, is the natural right of the inventor and is protected by the patent system. \textit{See} WARD S. BOWMAN JR., PATENT AND ANTITRUST LAW 12-13 (1973). Others believe that the exchange-for-secrets theory underlies the patent system. \textit{Id.} Still others advocate that a distributive justice theory is the basis for the system. \textit{See} Edmund W. Kitch, The Nature and Function of the Patent System, 20 J.L. & ECON. 265 (1977).

\textsuperscript{38} DEMARET, supra note 37, at 4. The costs involved in inventing can be very high because they involve considerable research and development. \textit{Id.} In contrast, the cost of using an invention is usually minimal.

\textsuperscript{39} \textit{Id.} at 4.
owner a temporary monopoly of a piece of new technical knowledge. As a result, the patent owner can regulate the use of this knowledge, thereby creating an economic value for such knowledge.\textsuperscript{40}

Others argue that the patent system does not provide incentive to innovate.\textsuperscript{41} Since developing a patented invention often requires more work than the actual invention itself, they argue the incentive must cover both invention and innovation.\textsuperscript{42} Much of the development work required in manufacturing an invention is not patentable. Therefore, these authors argue that a patent system does not really provide an incentive to develop such inventions and cannot provide an incentive for innovation.\textsuperscript{43}

Regardless of whether patents serve the needs of innovation, their primary purpose still remains to provide an incentive for invention.

\section*{IV. REASONS FOR INTERNATIONAL STANDARDIZATION}

Although individual countries implement patent systems to accomplish the purposes outlined above, they are not always successful. The incentive for innovation, which patent law offers inventors, is often stifled by the varying patent laws of different countries. International harmonization of patent law would address both the operation of the patent system and the patent laws themselves in order to maximize this incentive.

\subsection*{A. The Patent System}

Harmonizing the international patent system would entail organizing the current systems of applying for patents, granting patents, and litigating conflicts on a worldwide scale. One major drawback of the current system is the duplicity of various patent offices' efforts. The patent office of each country separately examines the application of an inventor to determine its patentability. Another drawback is the conflicting case law of different countries, which occurs despite identical patent regulation. Finally, the current international patent system needs to better define the role of lesser developed countries whose goals differ from those of industrialized nations.

\begin{flushleft}
\textsuperscript{40} Id.
\textsuperscript{41} Id.
\textsuperscript{42} Id.
\end{flushleft}
Unifying Patent Protection

1. Duplicity of Effort and Case Law

The patent system's first improvement is the elimination of the present multiplicity of effort extant among various patent offices. Currently, an inventor who seeks protection in several countries must file separate patent applications in the patent office of each country. Often, the inventor will file just to meet the countries' deadlines, without addressing the commercial viability of the invention in those countries. Nonetheless, in order to maintain those markets as possibilities, he must file separate patent applications. This repetition burdens not only the inventor, but also society. Each national patent office performs its own search to determine if the patent already exists, resulting in duplicative use of resources and personnel.

This duplicative process affects the prosecution phase of the patent as well. When each nation applies its own laws in prosecuting the patent and addressing issues of patentability, it is performing the same tasks as other nations regarding that patent grant. To eliminate this wasteful process, a single office could perform the necessary searches and apply a uniform law. This would lower the inventor's costs and the public's, since it is their taxes that fund the patent office.

Another problem that requires a uniform international patent system stems from the existence of conflicting case law. The standardization of patent law in all countries is not enough to maintain a workable system, since it is the courts that decide the sufficiency of the patent application, in addition to other requirements. Thus, even if every country had patent laws worded identically, it "does not mean that case law is brought into line." WIPO must regulate the patent system worldwide by providing guidelines so that individual courts will interpret the patent law similarly. Europe has taken a step in this direction by harmonizing the application of patent laws in the courts. National court decisions indicate that European courts are trying to standardize their case law and respect the decisions of other courts. Any uniform system that WIPO adopts must have a similar provision requiring the courts of member countries to apply patent laws uniformly.

Another major problem confronting national patent institutions
is the existence of international restrictive business practices. There must be an international body to handle such problems. Individual nations often do not have the jurisdiction to deal with extraterritorial or multinational problems. WIPO's anticipated role would be instrumental in administering laws and procedures to limit restrictive business practices on an international scale.

2. Lesser Developed Countries

Perhaps the most critical problem facing the present international patent system is the role of developing, or lesser developed, countries. A growing number of developing countries have become members of the Paris Union, indicating a desire for rapid industrialization. If these countries can establish certain basic technologies, then technology will more easily flow from the more advanced to the lesser developed countries. Currently, there are several countries without any patent system and five others that, for lack of a better system, adopted the entire patent systems of another country. An international patent system will be difficult to maintain if some of its members do not have their own patent systems. Thus, the first step to acclimating lesser developed countries to the international patent realm is to encourage each to develop a patent system that meets the guidelines of the international system.

Another obstacle developing countries pose to the international patent community relates to the cost of establishing and maintaining an international patent system. Such a system will require additional costs and fees from the member states, a burden that will weigh more heavily on lesser developed countries. These countries cannot afford the manpower and the costs of a patent office review procedure, which are normally critical components of the patent systems of industrial

50. DEMARET, supra note 37, at 111.
51. Id.
52. Id. at 114.
53. Id.
54. DEMARET, supra note 37, at 126. Demaret suggests that the costs to these countries should be counterweighed against the economic benefits of the inflow of technology. Id. He adds that comparing the cost of granting patents to foreigners cannot solely be compared with the benefits of national patentees abroad. Id.
countries.\textsuperscript{55}

Additionally, there may be economic costs associated with an international patent system. Protection of foreign technology will make imported goods and technology more expensive. Since the increase in costs of imports into such countries is related to the imports' patent protection, some countries may be more reluctant to grant patents to foreigners.\textsuperscript{56} Though the international patent system would result in an initial financial burden on lesser developed countries,\textsuperscript{57} the exact costs are difficult to quantify for the following reasons: (1) it is not possible to quantify the gains and losses of a country participating in the international patent system; (2) it is not possible to measure the benefit to the world as a whole from technological advancements in technology; and (3) it is not possible to quantify the incentives for innovation offered by the international patent system.\textsuperscript{58}

Despite the increased economic costs, developing countries have a strong interest in forming and becoming a member of a uniform international patent community since it allows them to obtain foreign advanced technology.\textsuperscript{59} Specifically, an international patent system would increase the flow of technology to developing countries' local economies.\textsuperscript{60} Inventors with information that may not otherwise be as easily accessible to such countries, now have an incentive to produce and develop their ideas in the new markets, and feel secure in the protection a uniform system provides. Additionally, the uniform international patent system would serve not only to transfer technology, but also to promote its creation. Issuing international patents to residents of lesser developed countries would promote the development of technology within that country to a greater extent than a national patent.\textsuperscript{61} An international patent would apply in foreign countries where the market for the invention may be more lucrative than at home. Consequently, international patents would provide impetus for inventors to advance technology within the lesser developed country.

Clearly, there is both a need for the international system to accommodate developing countries and the desire of those countries to

\textsuperscript{55} REPORT OF THE SECRETARY GENERAL, supra note 49, at 3.
\textsuperscript{56} DEMARET, supra note 37, at 127.
\textsuperscript{57} Id. at 128.
\textsuperscript{58} EDITH TILTON PENROSE, THE ECONOMICS OF THE INTERNATIONAL PATENT SYSTEM 96 (1951).
\textsuperscript{59} DEMARET, supra note 37, at 131.
\textsuperscript{60} ANDERFELT, supra note 2, at 142.
\textsuperscript{61} REPORT OF THE SECRETARY GENERAL, supra note 49, at 5.
join this system. Most likely, the international system will attend to the needs of these countries. However, to be complete the present discussion requires a further analysis of potential problems for developing countries under the international system. Indeed, many of these problems may occur regardless of whether an international system exists.

One major concern of the developing countries is that an international system will exhibit a nationalistic bias against foreign countries. In national patent legislation, the conflicts are generally between an individual's rights and the best interests of society. In the international realm these same conflicts exist with an added dimension; i.e., the likelihood that a state will side with its nationals when a conflict occurs between that national and another country's interests. When the state backs its own citizen in a conflict with a lesser developed country, the developing country must resist pressures from the individual, as well as from the foreign country. Such a conflict is likely to conclude with a result favoring the stronger technologically advanced country to the detriment of the developing country. Correspondingly, an international system may not adequately serve the needs of the developing country.

Another potential problem with an international patent system is that an international patent might be neglected in a less developed country. This occurs, for example, when the inventor chooses not to work the patent in that country. As a result, the country suffers in two ways. First, the country is paying for the patent by virtue of its membership in the international system. Second, the country is deprived of advanced technology. WIPO must address these concerns, even after it establishes an international system.

While the continued internationalization of the patent system may result in these problems, they do not provide sufficient reason to avoid such a movement. On the contrary, these problems illustrate why WIPO should standardize the international patent system with regulations, taking such concerns into consideration. These problems may arise even without the further internationalization of the patent

62. DEMARET, supra note 37, at 133.


64. PENROSE, supra note 58, at 106-07.
system. In fact, the significant differences in technology and capital among the industrial and the lesser developed countries will remain a source of continued conflict among these entities in the patent world. WIPO's role is to alleviate the concerns of lesser developed countries by developing a logical international system to minimize the potential problems.

To this end, WIPO has implemented a development cooperation program specifically designed to meet the needs of developing countries. This program is geared toward assisting developing countries with modernizing their patent laws, facilitating legislation, encouraging domestic creativity, and promoting access to technological information. WIPO, however, should be cautious while aiding the development of these countries' patent systems. These systems may develop to serve the needs of each country independently. If so, future harmonization in the international arena may be even more difficult. To avoid this difficulty, WIPO should encourage these countries to part with some immediate national advantages, so that future harmonization will be easier on a global scale.

B. Changes in the Patent Law

A second reason for international standardation is that the current patent laws of the international community lack uniformity in several areas. This lack of uniformity exists not in the laws themselves, but rather in the regulations countries have imposed to effectuate them. This large discrepancy among nations subjects the inventors to uncertainty, loss of patent rights, and economic waste.

---

65. DEMARET, supra note 37, at 125.
68. Id.
69. COLLIN, supra note 5, at 26. Dr. Collin examines advantages and disadvantages of filing under each of the various patent systems that exist in Europe. For example, he considers the European Patent Convention, the Patent Cooperation Treaty, and the Common Market Patent Convention. Dr. Collin claims that one must examine each case individually to find the most favorable protection for a patent. Only after such considerations can one then determine the most beneficial patent system under which to file. Id. at 31.
These discrepancies will nullify the incentives for invention that the patent system offers. They may also lead to a decrease in the international transfer of ideas. Further, these discrepancies will lead to patent litigation over differing regulations. Currently, several areas of patent law are vigorously contested internationally.

1. Prior Art Effect

One example of the lack of uniformity in the international patent system is the role of the "prior art effect" of patents. The term "prior art effect" refers to the use of a patent to determine whether an invention in a later filed patent application is new. This is an area where the law of the United States, the largest industrial nation, differs from that of other countries in the international community. The Paris Convention provides that the filing date of the first filed application operates as the filing date for granting subsequent patents in other member countries. In addition, most other countries recognize the filing date as the effective date for patent-defeating purposes. The United States only follows the Paris Convention's prioritization system when granting patents. For patent-defeating purposes, the United States does not recognize the filing date of a foreign application. It only recognizes the date that the patent was filed in the United States, even if it was filed on an earlier date in another country.

International harmonization will not be possible unless WIPO attends to prior art effect in patent defeating cases.

70. Kirk, supra note 8, at 603.
71. Id.

72. However, the first filing date can be used only if subsequent filings in other member countries are filed within one year of the first filing. Id. The term "patent-defeating purposes" refers to using one patent's existence, or, in this case the patent's filing, as evidence that a subsequent patent is not new and unobvious. In fact, the previous existence of such patents is evidence that a "prior art effect" existed. This evidence is used to defeat a current application for a patent. The United States only differs from the Paris Convention on the prior art effect use of foreign filing dates. Id.

73. See In Re Hilmer, 424 F.2d 1108 (C.C.P.A. 1970), describing 35 U.S.C. § 119 as a tool to be used only as a shield, and not as a sword to defeat a patent. The previous filing date of a foreign application is only valid under § 119 if it will save a patent in a priority dispute. In other words it can be used as evidence that a patent being objected to was actually conceived or reduced to practice on the date of the foreign application. But a party cannot use such a foreign filing date to show that a prior art existed that would defeat a patent in the interference proceeding. Id. at 1112. The court reasoned that the legislative history of § 102(g) clearly indicates this. Id.

74. Kirk, supra note 8, at 603.
2. Grace Period

Another area lacking uniformity is the allotted grace period for patent application. In the United States, an inventor has one year after disclosing his invention to file a patent application. Not allowing any grace period, other countries maintain that any disclosure prior to filing the patent nullifies the inventor’s ability to obtain a patent. As a result, while the grace period is of valuable protection to applicants in the United States who may first want to examine the marketability of a product, “it is a trap with respect to filing abroad.”

WIPO should establish a uniform patent filing grace period. This harmonization would benefit American inventors who want to test their goods in foreign markets before applying for a patent. A uniform grace period would also help the inventors in the scientific community who are pressured to publish regularly and who may not have time to first apply for a patent. The establishment of a uniform patent filing grace period, however, is not without problems. In Europe, for example, it would be particularly difficult to adopt a grace period since it cannot be introduced gradually, nor applied in several stages. Also, because of the time required to pass legislation, industrial nations may be unable to implement the grace period simultaneously.

Because of the implementation problems, WIPO has generated a tremendous amount of controversy with respect to the grace period debate. A country’s position on the grace period varies depending on whether the country is a first to file or a first to invent territory. An analysis of the debate is significant to the present discussion because, depending on which course WIPO chooses to follow (first to file or first to invent), maintaining or discarding the grace period will have corresponding advantages and disadvantages in the harmonization of the international patent system.

Currently, the United States is the only remaining state that fol-

75. The United States permits the inventor a grace period before filing the patent application and is considered a “first to invent” country. 35 U.S.C. § 102(a), (b).
76. Countries that do not permit a grace period are considered “first to file” countries.
77. Kirk, supra note 8, at 604.
78. Id.
79. Gall, supra note 26, at 140.
80. Id.
allows a first to invent system. Under this system, the grace period is not only harmless in facilitating the determination of the true inventor, but is actually helpful in determining who was the first to invent.\textsuperscript{82} Alternatively, in a first to file jurisdiction, third parties have a right to use the invention when it is disclosed during the grace period. Such use may cause conflicts when the inventor later files for a patent, because even though the inventor may be the first to file, the third party can claim prior use.\textsuperscript{83} In a first to invent jurisdiction, the only question is whether the prior user or the subsequent applicant was actually the first to invent.\textsuperscript{84}

Despite opposition to instituting a grace period in the harmonization proposal of WIPO, a grace period does not pose any significant drawbacks, even to first to file countries. Although it is theoretically possible to have a right of prior use arise during the grace period, such instances are rare.\textsuperscript{85} By the time a potential third party user investigates the invention's potential, produces it, and develops the required drawings to qualify for prior use, the allotted grace period will normally have expired.\textsuperscript{86} Alternatively, if the grace period has expired, then the original inventor can no longer file for a patent, and no conflict will arise.

Assuming that grace periods are workable in both first to file and first to invent systems, one must examine the benefits of the grace period. The grace period serves as a "safety net . . . to catch unavoidable or unintentional prior disclosure on the part of the inventor."\textsuperscript{87} Unavoidable or unintended prior disclosure occurs if during the testing of a possible invention, the inventor has no choice but to expose the product in the open. If such disclosure occurs, the inventor can still apply for the patent when he has fully developed the product. Unavoidable or unintended prior disclosure occurs frequently in industry, especially in agricultural appliances, manufacturing goods, shoes, and chemical products.\textsuperscript{88}

The grace period safety net also aids scientists who invent while

\textsuperscript{82} Id.
\textsuperscript{83} Id.
\textsuperscript{84} In the United States, 35 U.S.C. § 102(b) limits the grace period to one year from the date an inventor sells or allows public use of his invention. This way, prior use functions as prior art; it limits the patentee's rights and does not favor another's patent in a priority contest.
\textsuperscript{85} Bardehle, supra note 81, at 373.
\textsuperscript{86} Id. at 374.
\textsuperscript{87} Id.
\textsuperscript{88} Id.
involved in their research. Often, these scientists are required to publish and the lack of a grace period may deprive them of the fruits of their work. Clearly, a grace period tailor-made for the patent scheme that WIPO intends to implement internationally would "facilitate the . . . aim of WIPO to achieve worldwide harmonization of patent law."90

3. First to File System

Another discrepancy in the international patent system is the criteria used to determine priority between competing patents. Given the United States' technological impact on the world market, international harmonization of patent law would be difficult without the United States also adopting the first to file system. This difference in patent priorities leads to confusion, especially for American inventors who may be the first to invent, but not having been the first to file in other countries, receive no protection there.

WIPO has attempted to convince the United States to change to a first to file system, causing many groups within the United States to voice their opposition. Though this is not the first time that such a change has been suggested in the United States, the failure of past efforts shows that the first to invent system is securely embedded in the United States patent system.94

There are many reasons given for opposing the first to file system. One reason is that the first to file system would result in hasty filings by inventors with minimal experimental data, in order to file as

89. Id. at 375.
90. Id. at 376.
91. Id.
92. The opposition in the United States was strong enough that during a WIPO diplomatic conference, a delegation from the United States proposed keeping the first to invent system in exchange for giving up section 35 U.S.C. § 104 and the In Re Hilmer doctrine, which limit the admissibility of foreign activity and foreign filing dates in the courts of the United States. Albert Tramposch, International Harmonization of Patent Law, Paper presented to the International Meeting on Harmonization of Patent Laws 4-5 (May 7-8, 1992, John Marshall Law School, Chicago, Illinois). This willingness to compromise was due to the opposition to first to file and the "unlikelihood that the [United States] Congress would pass first to file legislation." Id.
94. Id. at 596-601.
soon as possible. Another reason is that the first to file system would result in the filing of a large number of applications that would otherwise not be filed. However, many commentators in the United States refute this reasoning. They contend that neither of these reasons are significant because many companies "file counterparts of their U.S. applications abroad, in countries [that] have first-to-file systems." These companies act as if they were already in a first to file jurisdiction, filing their applications as soon as possible. This is clearly an effect that the international patent community has had on the United States patent system. Thus, changing to such a system will not increase the number of applications. The commentators also contend that the quality of patent applications will not drop because United States patent law requires an enablement standard under section 112 of the Patent Code. The enablement standard requires inventors to disclose enough information to enable someone in the art to work the invention. Eventually, under the influence of WIPO and domestic opposition to the current system, the United States will switch to the first to file system. Therefore, harmonization, in at least this one area, will be achieved.

The alternative to first to file is regulating the international patent system on a first to invent basis. Converting the international arena to a first to invent system is an unreasonable proposition because it would require every country in the world to change to the United States' system. Another reason for rejecting an international

---

96. *Id.* at 564.
97. *See generally id.*
98. Dunner, supra note 95, at 563.
99. *Id.*
100. *Id.* But see Banner & McDonnell, *supra* note 93, at 603-04. They argue that the concept that the United States is currently functioning as a first to file jurisdiction only applies to large corporations and not to small businesses or individual inventors. For a small business or individual inventor, a first to file system would mean that it would have no chance if a large corporation, with its efficient patent processing department, files earlier. The smaller entity would have no recourse, even though it was the first inventor. *Id.*
Section 112 reads in pertinent part:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.
*Id.*
first to invent system is that the system requires interference proceed-
ings to determine which party was, in fact, the first to invent a prod-
uct. These interference proceedings are costly and time con-
suming. Incorporating the first to invent system on an interna-
tional scale would be unimaginably burdensome, both to international
and regional patent offices. This option, then, is neither a practical
possibility for international harmonization, nor a desirable one.

4. Process Patents

Process patents pose another obstacle to international harmoni-
zation. Process patents differ from traditional patents in that the pat-
ent is granted for a process that yields a product, and not the product
itself. Internationally, there is differing treatment for process patents;
the process may be patentable, while the product it produces may not be. Japan and many European countries allow a process patent to
protect both the process and the resulting product. The United
States, on the other hand, protects only the process.

To alleviate such discrepancies, WIPO proposes that all coun-
tries extend patent protection to the resulting product, as well as to the product process. This rule would “create a presumption that a
product, if it is a new product, was made by the patented process.”
This presumption is helpful in cases dealing with products that
originated in foreign countries. Interested parties may find it difficult
to determine how that product was made. The presumption shifts the
burden to the defendant to prove how it manufactured the product.
Clearly, the defendant is in a better position to show that the product
did not result from the patented process. The WIPO proposal is a
compromise between the United States system that gives no protec-
tion to the product and the European system that gives full

V. REASONS NOT TO STANDARDIZE INTERNATIONAL PATENTS

Although harmonization of patents in international markets has

102. Dunner, supra note 95, at 561.
103. Id. at 562.
104. Ralph Oman, Technology and Intellectual Property: The View from Capitol Hill, 50
105. Kirk, supra note 8, at 603.
106. Id.
107. Id.
108. Id.
strong advantages, some authors argue that other options exist. These options include maintaining territoriality and eliminating the need for patents. The following discussion will examine these options and compare them with international patent harmonization.

Advocates of maintaining territoriality claim that it will promote competition among products. They argue that international patents prevent would-be producers from manufacturing the invention in some countries. These are countries in which the inventor has chosen, for marketing or financial reasons, not to manufacture the invention. With a harmonized international patent system, other would-be producers are precluded from manufacturing the invention because it is protected in all nations. Without some driving force to exploit its patent, the inventor denies the invention’s usefulness in those nations. Alternatively, in the existing territorial patent system, inventors do not apply for patents in countries where they have no financial interest in developing the invention. Thus, manufacturers are free to produce the invention in those countries.

Territoriality advocates further argue that territoriality will advance the interests of a country that has different incentives for patenting than other countries. For example, the former Soviet Union’s patent law was aimed at distributing knowledge about inventions, rather than providing an incentive for innovation. Consequently, in a territorial patent system, the newly-emerging former Soviet nations can maintain the separate provisions of patent laws to continue to emphasize information distribution. An international patent system aimed at increasing invention would necessarily conflict with those goals.


111. Id.


113. Id. Although the new Soviet Patent Law is designed to provide more incentive for innovation, its sponsors disagree on the extent of incentive that should be offered at the expense of distribution of knowledge. Id. Because the individual republics are able to regulate their own patent laws, the disagreement on the purpose of patent laws will cause more conflict.

114. But see Guillermo Cabanelas, The Consequences of Stricter Working Requirements for Patentees Under the Paris Convention, 19 IIC 158 (1988). The author analyzes the effect of working requirements on an inventor. A working requirement initiates a system of compulsory licensing if the inventor fails to exercise his patent within a country. Id. at 165. Cabanel-
One alternative to the harmonization of the international patent system is the elimination of the patent system in favor of a compulsory licensing scheme. This approach would give a compulsory license to developers if the patentee fails to exploit his license within a certain number of years. A compulsory licensing scheme will eliminate the incentive to invent as well as the incentive to develop and introduce inventions. Furthermore, innovators will not be motivated to develop and register an invention, if after several years they may be entitled to a license worth much less than a patent.

Another alternative to a patent system is a general and special reward system. Alexander Hamilton suggested compensating inventors by paying them a general reward for discoveries and a special award for allowing the information to be distributed throughout industry. These systems, however, are arbitrary and have corruptive potential. For the aforementioned reasons, neither a system of compulsory licensing nor an awards system will serve the world's needs in determining a future course for international patent law.

VI. NEED FOR IMMEDIATE WIPO ACTION

The need for a uniform international patent system is exemplified by conflicting patent laws of different nations, the difficulty of obtaining patents in foreign countries, combined with the different interpretations of foreign courts. WIPO is the organization best suited to implement such a system. However, WIPO can ill afford to wait
before implementing uniformity. There have been numerous changes to the world political framework, including the fragmentation of the former Soviet Union and the end of the Communist bloc seclusion from international markets. These changes challenge WIPO to administer patent regulation in these new countries in a clear and coherent manner.

Clearly, the current problems in the international patent system result from each nation independently adopting its own laws, focusing on its own self interest. In fact, "such individual self-interest leads, when unchecked, to an inefficient industrial property order, that makes a universal industrial property agreement meaningful." As a result, the main reason for the immediate organization of international patent law is that any delay would allow these countries to create their own patent laws and thereby make future harmonization even more difficult.

A. World Changes

One of the major changes in the world economic and political system is the secession of the republics from the Soviet Union and their inclusion in the international market. Prior to its breakup, the Soviet Union had adopted a new Soviet patent law. The Soviet Union consulted WIPO in creating this law because of the possible difficulty in changing it later when an international system was established. The Soviet patent law may be adopted in whole or in part by the republics. Several aspects of this law pose potential obstacles to the future standardization of the Soviet republics' law with that of the international community.

One potential obstacle is Soviet patent law's establishment of a new court system. It enables the Peoples' Court to hear cases involving inventions that do not properly meet the jurisdiction of patent courts. The new Soviet patent law also establishes regional patent

the convention establishing WIPO. Notifications Concerning Treaties Administered by WIPO in the Field of Industrial Property, 31 INDUS. PROP. 211 (1992). Czechoslovakia has similarly submitted to WIPO its depository for the collection of microorganisms for approval. Id. at 211-14.
122. STEPHEN P. LADAS, PATENTS, TRADEMARKS AND RELATED RIGHTS § 174, at 283 (1975).
123. Cabanellas, supra note 114, at 183.
125. Id.
courts in recognition of the territorial rights of every republic.\textsuperscript{127} Even if the new republics do not adopt the Soviet patent law, the existence of any regional courts will perpetuate continued interpretational differences.

Of greater concern is the fact that each republic will adopt its own version of a patent system. The current system does not inhibit unfair competitions nor does it protect manufacturing secrets or integrated circuits.\textsuperscript{128} The republics will be free to legislate independently in these areas. If the republics pursue independent patent systems, then standardizing their patent systems with that of the international community will be even more difficult than before. WIPO should work with the individual republics as it did with the Soviet Union to encourage them to develop laws consistent with international principles. WIPO could even try to encourage the republics to adopt the elements that WIPO views essential to the future international patent system.

The former Soviet patent law and the current Czechoslovakian patent law were developed in this spirit. The product of WIPO influence, the new Czech law is aimed at serving as a basis for future improvements.\textsuperscript{129} Specifically, the new Czech patent law is the result of WIPO's work towards harmonizing international patent law.\textsuperscript{130} Similarly, the requirements concerning the patentability of an invention closely resemble those of the European Patent Convention, requiring new inventions and an inventive step.\textsuperscript{131} WIPO also influenced the drafting of the new Chinese patent law. In drafting this law, WIPO members were instrumental in suggesting and implementing aspects of the patent laws of member countries.\textsuperscript{132} WIPO members must be as involved with the development of the new Soviet republics' patent systems as they were with the Czech, Chinese, and former Soviet patent laws. To this end, WIPO has contacted several of the former Soviet republics and WIPO's director general discussed mutual interest issues with their representatives.\textsuperscript{133} However, for these efforts to be effective, they must include all of the new republics and contain more

\textsuperscript{127} Id. at 39-40. \textit{See also} Maggs, \textit{supra} note 112, at 277.

\textsuperscript{128} Bespalov, \textit{supra} note 15, at 323.


\textsuperscript{130} \textit{Id.}

\textsuperscript{131} \textit{Id.} at 325-26.


\textsuperscript{133} \textit{Activities of WIPO in the Field of Industrial Property Specially Designed for European Countries in Transition to Market Economy,} 31 INDUS. PROP. 227 (1992). For example, be-
detail, in order to develop consistent patent systems in these countries. WIPO must primarily concentrate on developing systems that are easily adaptable to the future international patent system under the Patent Cooperation Treaty.\textsuperscript{134}

**B. Technological Changes**

Technological changes in several scientific fields also mandate speedy action by WIPO. Biotechnology is one such field. It has progressed significantly during the last twenty years. Consequently, old laws on exclusion from patentability and disclosure need to be reevaluated.\textsuperscript{135} In fact, this reevaluation is extremely important given the number of existing treaties that cover varying facets of biotechnological patents.\textsuperscript{136} Because of the field's intricacy and complexity, biotechnology needs standard regulations.\textsuperscript{137} The industrial countries currently involved in biotechnology have begun to formulate their own patent laws, which could diverge in different directions, making future harmonization more difficult. WIPO's immediate concern should be to standardize biotechnology regulations or, alternatively, create guidelines for countries to follow as they develop their own biotechnology regulations.

Genetic engineering is another field related to biotechnology that is growing rapidly. International patent regulation in this developing field raises unresolved issues. Foremost among these is the disclosure requirement of patents.\textsuperscript{138} In the European Community, the disclosure of the invention must describe one variant so that a skilled person can duplicate the invention.\textsuperscript{139} This problem raises the possibility of unknown or undiscovered variants in the genetic invention that may nevertheless be included within the patent.\textsuperscript{140} To clarify the exact scope of patents with respect to the disclosure of genetic inven-

\begin{itemize}
  \item[{134}] See discussion infra part VII.D.
  \item[{136}] Kirk, *supra* note 8, at 607. These treaties include the European Patent Convention and the International Convention for the Protection of New Varieties of Plants. *Id.*
  \item[{137}] *Id.*
  \item[{138}] Keller, *supra* note 120, at 916.
  \item[{139}] *Id.*
  \item[{140}] *Id.*
\end{itemize}
tions and in the general field of biotechnology, WIPO must establish uniform guidelines before the territorial rules begin to diverge.

VII. Solutions

The discrepancies and the duplicity of effort extant in the various patent law systems, combined with the needs of developing countries, mandate a solution to the international patent system. Establishing an international patent system in some form is not only necessary, but should be implemented as soon as possible. No other form of information transfer distributes knowledge of the current state of technology as well as the international patent system.141 However, harmonization has not progressed as quickly as most would like.142 Most WIPO members hope for the passage of a harmonization agreement by the year 2000.143 This may be too late, however, as most developing countries and some of the new Soviet republics will have established patent systems by that time. The Patent Harmonization Treaty,144 held at the Hague in June of 1991, was one step in the speedy achievement of international harmonization. The harmonization treaty works toward the goal of uniformity by having individual patent offices recognize the examination results of other offices.145

More comprehensive solutions to solving the need for complete international harmonization exist. Some solutions have already been incorporated on a small scale in Europe and in Africa. The first step involves determining which of two paths is best suited for uniformity. The first option is to have one common law valid in all countries.146 The second option is to gradually harmonize the different laws of countries.147 The Council of Europe has chosen to follow the latter path.148 However, both paths can be pursued simultaneously since they lead in the same direction and supplement one another.149 Indeed, given the vast number of issues to be reconciled, WIPO could

142. Id.
143. Id. at 60.
145. Bardehle, supra note 141, at 60.
146. Von Holstein, supra note 24, at 203.
147. Id.
148. Id.
149. Id.
best harmonize by seeking one common law on some issues while trying to coordinate the different laws of countries on other issues.

The Madrid Agreement Concerning the International Registration of Marks\(^{150}\) provides a possible system to internationalize patents. The Madrid Agreement’s system is not unlike that proposed in the harmonization treaty held at the Hague in June of 1991. The Madrid Agreement provides for international protection of a patent once approved at one office.\(^{151}\) Other offices reserve the right to oppose automatically extending protection. This procedure, already implemented in the trademark area, is also possible in the field of patents.\(^{152}\) The present discussion will focus on other workable examples of multinational harmonization specifically in the field of patent law.

\section*{A. The European Economic Community Model}

The European Economic Community ("EEC") model serves as a workable existing example in the patent area. The EEC initiated a movement toward patent law harmonization due to court decisions holding that patents territoriality violated the Treaty of Rome.\(^{153}\) The goal of the EEC model was to adopt a system of classifying patents under "International Classifications."\(^{154}\) Under the EEC system, which sets out certain uniform principles for all parties to follow, each country could apply this international classification as the principal or the subsidiary system in its territory.\(^{155}\)

The EEC’s efforts to harmonize the patent system culminated in the European Patent Convention of 1973\(^{156}\) and the Community Patent Convention of 1975.\(^{157}\) The European Patent Convention established a single application for a European patent that would afford it protection in the territories of all parties to the Convention.\(^{158}\) It also established a central patent office to examine European patent applications.\(^{159}\) The Convention regulates procedural and substantive laws on issues relating to granting a patent and establishes the grounds

---

151. Bardehle, \textit{supra} note 141, at 60.
152. \textit{Id}.
155. \textit{Id}.
upon which courts may invalidate a European patent.160 Under this framework, each state is free to determine the effect of patents within its territory.161 Once a patent is awarded, it functions as the equivalent of any national patent within the member states.162

The Community Patent Convention system varies in that an inventor need only apply for a patent in one EEC country which, if granted, will remain effective in all member states.163 The Community patent is enforceable in all European countries through the court of one member nation, which must follow the post-grant patent law as described in the Community Patent Convention.164 Though the codified law of the Community Patent Convention is not as detailed and broad as that of the Afro-Malagasy or Scandinavian Patent systems,165 it still provides a unified base from which the patent system can function.166 The Community Patent Convention system eliminates many of the administrative burdens and allows more efficient utilization of the limited resources and manpower of the patent systems of the European countries.167 It also incorporates guidelines for the courts to follow, making the model an attractive one for WIPO to emulate or incorporate into its proposed scheme.

B. Afro-Malagasy Model

Like the European Patent Convention, the Afro-Malagasy model168 established a regional patent office and all countries subscribe to a common Patent Act.169 The Afro-Malagasy model is especially useful to members who lack funds and manpower because it eliminates a need for individual patent offices. The Afro-Malagasy model was initially motivated by the independence of the former French colonies in Africa.170 This independence resulted in a lack of clear guidelines on patent applications and regulations.171 The Afro-Malagasy model, like the EEC model, provided for a single patent

160. European Patent Convention, supra note 32, art. 36.
161. DEMARET, supra note 37, at 94.
162. Id.
163. Community Patent Convention, supra note 33, arts. 2, 3.
164. Id. art. 2(2).
165. See text accompanying notes 169-181.
166. Wolfeld, supra note 3, at 244.
167. Id.
168. Afro-Malagasy Model, supra note 36.
170. Anderfelt, supra note 2, at 105.
171. Id.
granted by the regional patent office that is separately valid in all member countries.172 Consequently, even if one nation revokes the enforceability of a patent within its territory, that patent remains in force in all the other member countries. Additionally, the entire application process and all communications with the office are in a single language, French.173 The Afro-Malagasy model is one of the most comprehensive examples of international patent co-operation currently in existence.174

C. Nordic Patent

The Scandinavian countries have agreed to a Nordic Committee to harmonize the current patent system and to implement new regulations. The provisions of the Nordic model are similar to the Afro-Malagasy model.175 The Nordic model provides that a patent granted by any one of the member countries will be effective in all of them.176 The Nordic system also allows each member to grant a Nordic as well as a national patent that is enforceable in all member nations.177 The major variation between the two models is that the Nordic model is not monitored through a central patent office.178

The study of this model is significant for several reasons. First, the Nordic model provides another example of a comprehensive patent harmonization scheme that regulates pre- and post-grant patent law. More importantly, the Nordic model serves as an existing example of a comprehensive system among developed and industrially active countries.179 Furthermore, the Nordic patent system has enabled the member states to "better meet the present needs of industry and absorb new international trends."180 The development of the Nordic model also encouraged participants to add new provisions permitting chemical compounds, foods, and drugs to become patentable.181 The

172. Afro-Malagasy Model, supra note 36, art. 1.
173. ANDERFELT, supra note 2, at 105.
174. Wolfeld, supra note 3, at 248.
175. Id. at 239.
178. Id.
179. Wolfeld, supra note 3, at 239.
181. Id. Lewin also suggests that the Nordic patent Committee also provided for the publication of patent applications 18 months after the priority date. Id.
benefits of a harmonization scheme to industrial countries are just as prevalent as the benefits to the lesser developed countries. The Nordic model demonstrates the applicability of a comprehensive harmonization system to all countries, whether industrially advanced or not.

D. Patent Cooperation Treaty

The Patent Cooperation Treaty ("PCT") resulted from WIPO's efforts to implement a greater degree of international cooperation. The PCT permits an inventor to file a single application for protection in as many party nations as he desires. Although the PCT also provides a central receiving office to determine if patent applications meet the requirements it outlines, this is the extent of the harmonization. The receiving office functions as a filtering stage for collecting and inspecting applications that are then distributed to each nation designated by the inventor. Although this procedure minimizes the burden on the applicant, it still results in repetitive effort with respect to the prosecution of the patents in the chosen nations. The PCT extends inconsistent protection to the patent in the different countries because it does not provide control over, or uniformity in, the individual states' patent laws.

E. Languages

While establishing uniformity in international patent law, WIPO should also emphasize a uniform language. This would simplify the transfer of technology between states and eliminate the possibility of translation mistakes. This idea has already begun fermenting in many international organizations. Additionally, a uniform language would reduce the cost of maintaining the international patent office, because each patent grant will not have to be translated into multiple different languages.

WIPO should move quickly to implement a uniform language.

---

185. Id. art. 20.
186. Bardehle, supra note 141, at 61.
187. Id.
188. Id. Bardehle suggests that even though the courts that read the patent grants will have to translate them, court cases are very rare. They are especially rare if the laws applied to the patents are uniform. Id.
The need for a uniform language will inevitably arise in patents, as well as in commercial and technical communication.\textsuperscript{189} The earlier a uniform language is in place, the less shock to the international community, and the fewer difficulties in later adjusting patent systems to a new language.\textsuperscript{190} Currently, WIPO's draft patent harmonization treaty includes a provision requiring applications to be filed in English.\textsuperscript{191}

VIII. CONCLUSION

WIPO should lead the nations of the world in implementing a uniform system of international patents. However, its attempts to harmonize patent law must first simplify an already complex procedure.\textsuperscript{192} At the same time, WIPO should make every effort to immediately implement this system. The new Soviet republics have to adopt a patent system now that the Soviet Union has dissolved and its new patent law is no longer binding. The field of biotechnology will require individual countries to accommodate its discoveries with changes in their patent laws. These events will give rise to divergent biotechnology patent laws in the new Soviet republics and the world in the field of biotechnology. Consequently, WIPO should act immediately, incorporating these concerns.

Similarly, WIPO should maintain the first to file system because it is the least burdensome method of determining the actual inventor. In this context, convincing the United States to change to a first to file system would be easier than changing the world to a first to invent basis. However, WIPO should adopt the United States grace period. The grace period serves the interests of scientists without greatly affecting the process of determining the inventor. WIPO's philosophy of compromise between the United States and European views will serve well to accomplish its goals of international harmonization. WIPO's proposed system will work in the United States, as well as the European and Japanese patents systems.

In implementing the international system, WIPO should heed other concerns as well. WIPO should establish a central patent office that would function under a single language. This system would minimize the multiplicity of effort that is so prevalent in the patent world.

\textsuperscript{189} Id.
\textsuperscript{190} Id.
\textsuperscript{191} News and Comment, supra note 101, at 3.
\textsuperscript{192} Gall, supra note 26, at 142.
today. WIPO's system should also accommodate the needs of developing countries as they fit into the international patent arena. Although WIPO has a number of options, the Afro-Malagasy model offers a workable example of a centralized patent office. WIPO could also borrow from the Nordic or European patent models, which universally recognize a patent if any single country recognizes it. Before implementing such a step, however, most countries must have similar patent rules so that all members will recognize the patents granted by other countries.

WIPO will best achieve its goal of harmonization by both seeking uniformity in the patent laws of all countries and establishing a centralized patent system to regulate international patent law. Since speedy implementation is essential, WIPO must pursue both harmonization and uniformity simultaneously. These efforts alone may lead to improvements in countries' patent systems, as the Nordic efforts have succeeded among the Scandinavian countries. Rewards from harmonizing the international patent system will appear as WIPO proceeds towards its goals, as well as after WIPO completes its work.

Although this Comment has addressed the controversial issues in international patent law and offered some viable solutions, they are not the only options. This Comment should serve as an outline of specific areas of concern with suggestions for attacking these problems. As WIPO proceeds toward unifying the international patent system, it will have to resolve issues of practicality and resistance to change. For example, although courts need to apply case law uniformly, methods of unifying the case law remain at the discretion of the international community. However, this Comment intends to stress the benefits in acting immediately to establish a uniform international patent system. The list of existing obstacles to unifying the system will only increase if WIPO delays the process.

* Faryan Andrew Afifi*

---

* This Comment is dedicated to my parents who made it possible by giving up so much so that I had opportunities to work and learn.