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The Time is Nigh: A Proposal for an International Patent System

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THE TIME IS NIGH: A PROPOSAL FOR AN INTERNATIONAL PATENT SYSTEM

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ABSTRACT

The world is slowly but inexorably moving towards adopting an integrated global patent system. It is inevitable that the present inefficient and splintered system in which patents must be separately obtained and enforced in each nation state must evolve to make obtaining global patent protection an achievable proposition for those other than just the wealthiest multinational corporations. The global patent system proposed in this article allows a patent applicant to file a single patent application in an international patent office, have that patent application examined in accordance with a uniform patentability standard, and results in the grant of a unitary patent that is enforceable in all member states. The proposed system differs significantly from previous proposals for a global patent system because it calls for matters of patent enforcement to remain the exclusive domain of member states and their courts rather than calling for the creation of an international patent court to hear infringement suits. This aspect of the proposal makes it a viable alternative to the current system because it allows nation states to retain a degree of sovereignty and control over the patents that are enforced in their territories, while embracing the substantive and procedural efficiencies concomitant with a truly integrated global patent system.

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I. INTRODUCTION

Despite 150 years of admirable international consensus, the global patent system remains an inefficient collection of national patent systems and national laws. In this disjointed system, patents and national patent

systems are firmly territorial in nature. Nations independently create and enforce their own national patent laws, maintain independent national patent offices, examine patent applications and grant their own national patents. Other than by some regional patent agreements, the norm is that patents for inventions are only protected in countries where a patentee has filed a patent application and where a patent has been granted. Outside those countries the patentee has no protection from imitators. Further, a patent holder must enforce each distinct national patent country by country, which is complex, incredibly costly and time-consuming.[1]

This fragmentation is the natural consequence of a global political and economic system that values national sovereignty most highly. Although the various harmonization efforts that have taken place in the last 150 years have ensured that the concepts of patentability are largely similar around the world, there remains a significant lack of uniformity in countries' substantive patent law and patent practice. While the content of a nation's patent laws is largely dictated by the various international treaties and conventions that impose minimum standards of intellectual property protection, those treaties, for the most part, describe conceptual norms in broad terms that lack prescription as to the detail or means by which they are to be implemented in legislation. Nation states and their legislatures, therefore, retain a significant freedom in deciding how the minimum standards dictated by international law are enacted in domestic law. These freedoms have been necessary to achieve consensus between nation states to negotiate complex international treaties, and are a recognition of the fact that different circumstances have necessitated that different standards be applied to suit local conditions in various places. However, they also create injustices for patent applicants and patentees, whose rights are often smothered by the sheer cost of engaging with the system. The territorial nature of patents causes unnecessary duplication of effort, both on the part of patentees and national patent offices. This duplication in turn imposes exorbitant costs on those who seek to patent in multiple countries and enforce patents when they are infringed. Patent applicants pay filing fees and maintenance fees in each jurisdiction in which protection is sought, along with the legal costs associated with preparing and prosecuting each patent application. Then there are the exorbitant costs of bringing infringement actions in multiple

1. Kevin P. Mahne, *A Unitary Patent and Unified Patent Court for the European Union: An Analysis of Europe's Long Standing Attempt to Create a Supranational Patent System*, 94 J. PAT. & TRADEMARK OFF. SOC'Y 162, 163 (2012); John H. Barton, *Issues Posed By A World Patent System*, 7 J. INT'L. ECON. L. 341, 352 (2004); MARKETA TRIMBLE, GLOBAL PATENTS: LIMITS OF TRANSNATIONAL ENFORCEMENT 82 (Oxford Univ. Press 2012).

jurisdictions. The current system also imposes the significant costs of running patent offices on nation states.

Since the domestic patent laws of nation states are not uniform, patent applications are often tailored to take account of local legal or procedural idiosyncrasies when patents for an invention are sought in different places. As such, patent applications in respect of the same invention filed in different places are rarely identical (which involves incurring additional costs in each jurisdiction in which the patent application is modified), and prior art searches and examinations of those patents will rarely be identical, but the differences will be in substance immaterial.[2]

A recent collection of disputes between Apple Inc. and Samsung Electronics Co., Ltd conducted before the courts in the United States, South Korea, Britain, Germany, France, Italy, the Netherlands, Japan and Australia and other places highlights the problem inherent in the need to enforce patents separately in each jurisdiction. The high cost of obtaining and enforcing parallel national patents runs contrary to the public interest because it is a disincentive to innovate. An inventor who is concerned about his or her invention being commercialized by others in countries where he or she cannot afford to secure a patent may be reluctant to disclose the invention in any country, and may instead rely on trade secrets to maintain exclusivity in the invention, thereby depriving the public of any disclosure of the invention and its workings. Alternatively, he or she may refuse to disclose or even use the invention entirely, or opt to not invent at all in favor of pursuing other activities. In many cases, those costs are a deterrent to would-be inventors. When inventors can afford to patent, the costs are passed on to consumers.

The high costs of obtaining and enforcing patents in multiple jurisdictions takes the prospect of getting patent protection in more than a handful of countries out of the reach of the vast majority of individuals and SMEs. As a result, global patent protection is in most cases only within the reach of the best-resourced multinationals.[3] In most instances, patent applicants seek patents in only a small number of countries. Although the decision as to which jurisdictions a patentee will seek to patent in will be subject to many factors, including what the invention is and what production capacity competitors may have in particular jurisdictions, the marginal cost of seeking to patent in additional jurisdictions will be a factor in many cases.

2. Robert W. Pritchard, *The Future is Now - The Case for Patent Harmonization*, 20 N.C.J. INT'L L. & COM. REG. 291 (1995).

3. Michael N. Meller, *Planning for a Global Patent System*, 80 J. PAT. & TRADEMARK OFF. SOC'Y 379, 380 (1998).

Those patent applicants who seek patents for the same invention in multiple countries file on average in fewer than four countries.[4]

The duplication inherent in national patent offices separately examining patent applications contributes to patents that fail to satisfy the statutory requirements of novelty or inventive step being improperly granted.[5] Patent offices in countries that actually examine patent applications before granting patents have been criticized for failing to provide their examiners with sufficient time and incentives to properly examine patents.[6]

There are, however, some exceptions to the patent system's territorialism. The first is that a few nations have formed patent communities, whereby a patent granted in one community nation is valid in all other community nations. One example is the Switzerland-Liechtenstein Patent Cooperation Treaty, a bilateral treaty that provides common legislation in the field of patents for Switzerland and Liechtenstein. The two countries constitute a single patent area; a Swiss patent is effective in Liechtenstein and vice-versa. Another notable example is the African Intellectual Property Organization (OAPI) Agreement. The agreement created a single patent area among French-speaking nations in Africa. Any patent application filed in a member state or the regional patent office created by the agreement is treated as the equivalent of a national filing in each and every member state. Finally, mention should be made of the proposed European Unitary Patent scheme, which allows for a single unitary patent enforceable in all participating EU states that are parties to the Agreement on a Unified Patent Court.[7]

Trimble posits that there are a number of economic and social realities that counter any perceived need to maintain the strict territoriality of patents. These are that industrialization has spread to all parts of the world; the world is much more interconnected in that trade crosses borders and the Internet facilitates rapid exchanges of information; and policy making is departing from a strictly territorial framework.[8] Similarly, Khoury has opined that we are already moving away from a strict territoriality and as such we have witnessed the end of the national patent office in its conventional form

4. WORLD INTELLECTUAL PROPERTY ORGANIZATION, PATENT COOPERATION TREATY YEARLY REVIEW: THE INTERNATIONAL PATENT SYSTEM 15 (Brenda O'Hanlon, 2016).

5. ADAM B. JAFFE & JOSH LERNER, INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT 137 (Princeton Univ. Press 2007); Gerald J. Mossinghoff & Vivian S. Kuo, *Post-Grant Review of Patents: Enhancing the Quality of the Fuel of Interest*, 85 J. PAT. & TRADEMARK OFF. SOC'Y 231, 232 (2003).

6. *Id.*

7. European Comm'n, UNITARY PATENT, https://ec.europa.eu/growth/industry/intellectual-property/patents/unitary-patent_en (last visited Aug. 2, 2016).

8. *See* MARKETA TRIMBLE, *Preface to* GLOBAL PATENTS: LIMITS OF TRANSNATIONAL ENFORCEMENT, *supra* note 1 at vii.

because it is no longer compatible with the cross-border characteristics of innovation and the way inventions are now being patented, protected, and enforced.[9]

The proposal contained in this article advocates the breakdown of this territorialism and is the next logical step in a natural progression that builds upon the significant steps that have been taken already towards achieving a global system.

The history of patent law has arguably always been one of international integration and harmonization. Its beginnings lie in nation states noting the benefits of other countries' patent systems and adopting similar systems of their own.[10]

The first steps towards a world or global patent system were taken by those who instigated the 1883 Paris Convention for the Protection of Industrial Property.[11] The Paris Convention (the world's first intellectual property treaty) established a priority system that made it easier to apply for patent protection on a country-by-country basis.[12] It arose as a result of foreign exhibitors being unwilling to exhibit their inventions at the International Exposition of 1873 in Vienna because they believed they would not receive legal protection from imitators.[13] Prior to the Paris Convention, inventors needed to arrange to simultaneously submit patent applications in each country in which they sought protection, otherwise the first application submitted would destroy the novelty in any subsequently submitted applications.[14] The Paris Convention was initially adopted by eleven countries,[15] and its membership has since grown to 176 countries and includes all the world's industrialized nations and nearly all developing nations.[16]

9. Amir H. Khoury, *The End of the National Patent Office*, 52 IDEA 199, 202 (2012).

10. John F. Duffy, *Harmony and Diversity in Global Patent Law*, 17 BERKELEY TECH. L.J. 685, 710-12 (2002).

11. Paris Convention for the Protection of Industrial Property art.1, Mar. 20, 1883, *last revised* July 14, 1967, 21 U.S.T. 1583, 828 U.N.T.S. 305 [hereinafter Paris Convention].

12. *Id.* at art.4.

13. Warren S. Wolfeld, Note, *International Patent Cooperation: The Next Step*, 16 CORNELL INT'L L.J. 229, 235 (1983).

14. Gerald J. Mossinghoff & Vivian S. Kuo, *World Patent System Circa 20XX A.D.*, 38 IDEA 529, 532.

15. The original signatories to the Paris Convention were Belgium, Brazil, France, Guatemala, Italy, the Netherlands, Portugal, Salvador, Serbia, Spain and Switzerland.

16. For a list of all nation states that are contracting parties to the Paris Convention, *see* States Party to the PCT and the Paris Convention and Members of the World Trade Organization, http://www.wipo.int/export/sites/www/pct/en/texts/pdf/pct_paris_wto.pdf (last visited Aug. 16, 2016) [hereinafter Paris Convention Parties]. As Von Holstein has noted, given that the Paris Convention originated at a time when nation states jealously guarded their national sovereignty, the formation and wide adoption of the Paris Convention is a remarkable feat: Von Holstein, *International Cooperation in*

By 1970 the Patent Cooperation Treaty (PCT) was introduced to provide a simplified means of obtaining global patent protection or patent protection in a multitude of countries. Although it does not lead to an international patent, the PCT allows a patent applicant to file a single patent application to commence the process of obtaining patent rights in any number of the PCT's 150 member states.[17] The result is a collection of national (or regional) patents in the jurisdictions in which patents are granted, all of which must be separately maintained and enforced. The PCT also provides for preliminary search and examination of the application, which gives an applicant a preliminary opinion as to whether the invention sought is patentable.

Of recent notable interest is the considerable number of collaborative Patent Prosecution Highway ("PPH") programs that have been established between national and regional patent offices for the purpose of sharing and relying on each other's search and examination results. These programs, usually bilateral, are created with the aim of reducing the time taken to examine patent applications and the backlog of pending applications in many patent offices around the world.[18]

While these, and other initiatives, are steps in the right direction, what is needed is a bold jump from nationally-focused systems to true international integration. Such an outcome could only be achieved by way of countries voluntarily agreeing to the terms of a multilateral international agreement.

II. THE PROPOSAL IN BRIEF

It is proposed that the current fragmented and inefficient system by which a multiplicity of separate national patents is applied for, examined and enforced in respect of the same invention in many nation states be replaced by a genuinely international patent system. In pursuance of this objective, it is proposed that all member states to a new international treaty cease granting national patents and instead recognize the validity of a unitary patent of global effect issued by an international patent office.

The main goals of this proposal are to reduce the duplication of effort and expense involved in nation-states maintaining parallel national or regional patent systems, to improve patent quality, to consolidate the collection and disclosure of state-of-the-art technical patent information in

the Field of Patent Law with Special Reference to the Activities of the Council of Europe, 16 INT'L & COMP. L.Q. 191, 193-94 (1967).

17. Paris Convention Parties, *supra* note 16.

18. *See* U.S. PAT. AND TRADEMARK OFF., THE 21ST CENTURY STRATEGIC PLAN (2003); Alicia Pitts & Joshua Kim, *Patent Prosecution Highway: Is Life in the Fast Lane Worth the Cost*, 1 HASTINGS SCI. & TECH. L. J. 127, 127 (2009).

one place, to achieve substantive law harmonization in respect of patentability and patent enforcement, and to address difficulties a patent holder faces when seeking to enforce patent rights in many jurisdictions. While the proposal would require nation states to sacrifice a portion of their national sovereignty in respect of patents, it is argued that this sacrifice is essential to remove unnecessary inefficiencies present in the current system and bring the benefits of global patent protection within the reach of those other than just the wealthiest and best resourced multinational corporations.

There are four principal parts to the proposal.

At the heart of the proposal is a unitary international patent, to be known simply as an International Patent, the validity of which will be recognized in all member states that are signatories to a treaty giving effect to this proposed international patent system (the "International Patent Treaty"). The proposal involves a patent applicant filing a single patent application (an "International Patent Application"), which would lead directly to a single substantive examination by an appropriately resourced central international patent office (known as the "International Patent Office").

Furthermore, a review panel of the International Patent Office would, to the exclusion of member states, have sole power to centrally administer all pre-grant opposition and post-grant revocation challenges (with rights of appeal to the International Patent Court). The exclusion of national patent offices and national courts from these processes ensures that the result of any post-acceptance or post-grant challenge to a patent's validity is given effect in all member states and remains uniform across the globe.

Having patents examined only by a single central patent office removes the unnecessary duplication that occurs at present when national patent offices independently examine parallel patent applications filed in various nation states in respect of the same invention. More importantly, it has the potential to ensure sufficient resources (in terms of time, expertise and access to repositories of prior art) are devoted to ensuring that patent examination is done as well as it can be, to limit the granting of bad patents that are invalid for want of novelty, inventive step, or sufficient disclosure. This approach also has the potential to greatly reduce the filing, examination, maintenance and other associated fees currently borne by patent applicants. By streamlining the process in this way, it is anticipated that the cost of obtaining an International Patent could be comparable to that of obtaining a small number of national patents and that the on-going cost of maintaining the International Patent Office be met through patent filing and maintenance fees.

The second part of the proposal concerns the substantive law harmonization necessary to sustain a single unitary patent and a single patent office that conducts all patent examinations. What is proposed in this regard is that the International Patent Treaty create a single test for patentability in line with the requirements presently set out in Article 27 of the TRIPS Agreement, but that it also permit member states to legislate that patents for certain classes of invention (to be set out in a list permitted patentable subject matter exclusions) are not enforceable in their jurisdictions. This allows member states to retain control over the classes of invention that are

protected by patents in their territories and to create subject matter exclusions over things like business schemes, computer programs and methods of treating the human body. This mechanism is a necessary means of accommodating the variety of disparate interests of the developed and developing nations that will be among the member states.

The third part of this proposal differs significantly from previous proposals for a global patent system. It is proposed that matters of patent enforcement remain the exclusive domain of member states and their courts. As such, it is not proposed that the International Patent Court have a role in patent infringement proceedings. The key to this aspect of the proposal is that it takes advantage of the proposed substantive law harmonization. This substantive law harmonization makes practicable the hearing of cross-border patent disputes in a single nation's courts, rather than a multiplicity of enforcement proceedings being heard in parallel in different national courts.

The fourth, and perhaps the most controversial aspect of this proposal (and its main barrier to being implemented), is that it recommends an international patent system that has English as its one and only official language. This choice has been made because it is predicted that automated language translation tools will be developed to a point where they can be relied on to accurately translate the complex and detailed technical language of patent specifications by the time any international treaty implementing the proposal can be agreed upon and implemented.

This proposal not only removes the difficulties associated with the need for patent applications to be separately examined in each county in which the applicant seeks patent protection, but also purports to address the difficulties a patent holder faces when seeking to enforce patent rights in many jurisdictions. Importantly, this proposal does not advocate for an international patent court capable of hearing patent infringement actions, which is arguably too much of an interference with national sovereignty.

The barriers that stand in the way of the establishment of the proposed integrated international patent system are significant, but not insurmountable. The most significant barrier, as noted above, is the choice of English as the one and only language of the International Patent Office.

Another likely impediment is the reluctance of nation states to relinquish the national sovereignty that gives them strong control over the processes by which patents are granted, refused and otherwise administered within their borders.[19] This reluctance, coupled with the competing interests of various nation states (particularly the competing interests of developed and developing countries) is perhaps a reason why different countries have different national patent laws today. Barriers of this kind are not peculiar to patent law, but arise in respect of proposals to harmonize other fields such as environmental law, laws regulating the safety and sale of pharmaceuticals, and international trade law.[20]

19. Anthony D. Sabatelli & J.C. Rasser, *Impediments to Global Patent Law Harmonization*, 22 N. KY. L. REV. 579, 584 (1995).

20. *Id.* at 580.

Another potential barrier lies in likely objections from those in countries where most inventors do not seek patents. By signing up to a global patent system, they will be subject to patents they would not otherwise have been subject to. Due to the existing cost of patenting in multiple jurisdictions, in some places patents are not routinely sought and people are ordinarily free to imitate in those jurisdictions, provided the technology necessary to exploit the patent exists in those places. This is a freedom that will be lost with the introduction of a unitary international patent. The counter argument is that the people in many of these countries may not have the capacity to exploit the inventions described in most patents independently of the patentee, and would not even hear of the invention in the absence of a patentee bringing that invention into their country.

Finally, opposition to the proposal can be expected from those with vested interests, such as patent agents and attorneys whose business models depend on the structures and institutions of the current international patent system. Removing the need to tailor and prosecute local national patent applications will reduce the work of those in the patent agent and attorney professions, particularly the lucrative work of acting as a foreign filing agent when a patent attorney in another country has created the patent application.

III. THE PROPOSAL IN DETAIL

This proposal aims to take the best elements of existing national patent systems and international treaties and adapt them to the needs of an integrated global system, while seeking to observe the need to accommodate disparate interests of nation states at different stages of development. Importantly in this regard, the resulting institutions must be independent. They must not be, or be seen to be, tools for furthering the interests of a particular regional constituency.

A. A Unitary International Patent Issued by an International Patent Office

The centerpiece of the proposal is that all member states delegate to the International Patent Office the exclusive power to grant patents that are of global effect.

The proposal requires that a patent applicant file a single International Patent Application with the International Patent Office. This would lead directly to a substantive examination by the International Patent Office and the grant of a unitary International Patent, the validity of which would be recognized in all member states upon grant. The proposal further requires that the International Patent Office determine any challenges to the validity of an International Patent to the exclusion of member states. The grant of an International Patent would not result in the creation of a bundle of national patents like that which results from an application made pursuant to the European Patent Convention or the Patent Cooperation Treaty. The main difference in this regard is that the proposed international patent be a unitary patent whose validity is recognized by each nation state, but which can only

be enforced in that courts of each member state individually, and can only be revoked by application to the International Patent Office.

It is proposed that by eliminating the expense required to maintain parallel national patent systems, it would be possible to re-conceptualize patent examination by mandating that more time be devoted to identifying relevant prior art and that examination be a collaborative exercise between patent examiners. Consolidating examination in one office eliminates the possibility that exists currently of national patent offices achieving inconsistent results when examining the same or practically identical parallel patent applications in respect of a single invention.

The proposed international patent system would also have the advantage of consolidating state of the art technological patent information in one place. All patent applications and patent specifications would be published on the International Patent Office's publicly accessible patent database. Presently, the state of the art technological information contained in patent specifications is scattered all over the world in patent databases operated by national or regional patent offices, some of which are more accessible than others. In addition, the proposal will necessarily require patent examiners to access a single electronic database of prior art to search. This would involve linking the databases of existing nation patent offices to create a global database of shared information.[21]

The term of an International Patent will be 20 years, measured from the date a non-provisional (or complete) application is filed, which is presently the international norm established by the TRIPS Agreement.[22] In the absence of compelling reasons, it would seem that this term ought to be retained. The system should allow for extensions of the patent term for patents on pharmaceuticals to compensate patentees for the time taken to obtain regulatory approvals needed before a pharmaceutical substance can be sold to the public.[23] The allowable extension of the patent term should be for a period of up to five years.

Obtaining an International Patent begins with a patent application (an "International Patent Application") being filed with the International Patent Office and accompanied by the requisite filing fee. All patent application filings are to be electronic, and must be capable of being filed by patent attorney agents and members of the public. The application must contain an abstract, a specification and claims, as is required for patent applications in every country in the world today.[24]

The proposal adopts the current approach that allows applicants to obtain an earlier priority date by filing a provisional application and maintain

21. Paul Edward Geller, *An International Patent Utopia?*, 25 EUR. INTELL. PROP. REV. 515, 516 (2003).

22. Agreement on Trade-Related Aspects of Intellectual Property Rights art. 33, Apr. 15, 1994, 1869 U.N.T.S 299, 33 I.L.M. 81 [hereinafter TRIPS Agreement].

23. The Drug Price Competition and Patent Term Restoration Act of 1984 (Hatch-Waxman Act), Pub. L. No 98-417, §201 (1984) (codified as amended in 35 U.S.C. §156(a)(4)).

24. Patent Cooperation Treaty art. 3, Jun. 19, 1970, 28 U.S.T. 7645, 1160 U.N.T.S. 231.

the application so long as a complete application is filed within 12 months of the provisional.[25]

The International Patent Office will, with necessary modifications, adopt the patent classification system administered pursuant to the Strasbourg Agreement and the microorganism deposit system of the Budapest Treaty.

1. A single centralized publication

In accordance with the current norm,[26] the International Patent Application, including the patent specification it contains, will be published 18 months after the application is filed, or earlier if the applicant asks that the application be published before this time.[27] The application will be published on a publicly available online database maintained by the International Patent Office. This database must be easily searchable and accessible free-of-charge.

The English-language specification will be published on the International Patent Office's web site, along with machine translations in every language nominated by member states. Although translations of the application will be published, it is the English language application that remains the official application that is used in all dealings with the International Patent Office. The translations, however, will be used in infringement and non-infringement proceedings in national courts where the language used is not English. The translations need to be made available at this time because it would be inequitable for the system to allow a patent written in English to be enforced in a jurisdiction where English is not an official language. It might also be problematic for the courts to interpret a document in a foreign language that is the source of proprietary rights. Patent applicants must have the option to file their own translations to replace machine translations if they are not satisfied with a machine translation produced by the International Patent Office.

It is disclosure of the patent specification through publication that gives effect to the patent applicant's obligation to disclose the invention being patented.[28] Presently, when an applicant seeks patent protection in one or more patent offices without filing in all countries, publication of the patent specification by one of those patent offices effectively discloses the invention everywhere in the world. This is so even though the patentee's monopoly is only enforceable within the territorial borders of the country or countries in which a patent has been granted, whereas the information disclosed knows no borders. Previously language and isolation were more effective in locking information in one place and industrial capabilities

25. Paris Convention, *supra* note 11, art. 4. An applicant who files a provisional application must file a corresponding non-provisional (or complete) application within 12 months, otherwise the application lapses irretrievably (no extensions of time being permitted).

26. Duffy, *supra* note 10, at 715-716.

27. Patent Cooperation Treaty, *supra* note 24, art. 21(2)(b).

28. 35 U.S.C. §§ 112, 122.

limited the number of countries in which the invention could be practiced. Now the reproductive capabilities, accessibility and reach of the Internet really do mean that publication is global.

The second function of the disclosure of a patent application is that it marks the start of the period during which the patentee can enforce rights of exclusivity. A patentee can sue in respect of any act that takes place from the time the application is published, but cannot commence infringement proceedings until the patent has been granted (which will not occur until after a substantive examination has been performed). It is proposed that the International Patent operate in the same way. That is, the holder of an International Patent will be permitted to sue in respect of any act that takes place from the time the specification contained in an International Patent Application is published, but cannot commence infringement proceedings in a national court until an International Patent is granted. Having a unitary international patent means that the patentee's period of exclusivity in the invention begins at the same time everywhere in the world.

2. Examination

To ensure there is efficient use of the examiners' time, International Patent Applications will not be examined unless and until the applicant has requested an examination. In the same way that not all national patents proceed to examination, not all International Patent Applications will be examined. There are various reasons why a patent application might not proceed to examination. It might be the case that the applicant has run out of money and can no longer afford to prosecute the application. Alternatively, the invention may have been superseded by better or cheaper substitutes. If an examination is not requested within five years of the International Patent Application having been filed, the application lapses irretrievably.

There must be a means by which an applicant can request an expedited examination to obtain an International Patent quickly, say if the applicant wishes to prosecute infringement proceedings promptly or wishes to have certainty in its proprietary rights for the purpose of licensing or other commercial purposes.

One aspect of the proposed system is to improve patent quality by ensuring appropriate resources (in terms of time, expertise and access to repositories of prior art) are directed to patent examination. One way to achieve this would be for patents to be examined by two or more teams of patent examiners working in competition. Examiners grouped in teams would work collaboratively to identify prior art and test the alleged invention against that prior art. Teams of examiners working competitively against one another will more likely produce "better" or more accurate results than examiners working in isolation with less incentive to produce the best results they can achieve.[29]

29. Duffy, *supra* note 10, at 707.

3. Pre-grant and post-grant opposition

Acceptance (otherwise known as allowance), and publication of that acceptance, follows examination and precedes a pre-grant opposition period and a formal grant of an International Patent. Acceptance occurs when the patent examiners raise no further objections to the International Patent Application. Once an International Patent Application is accepted, a notice to that effect is published. A three-month pre-grant opposition period commences on publication of that notice. During that time, anyone who objects to the grant of an International Patent for the invention on the ground that the invention does not satisfy the international patentability requirements may commence an opposition proceeding by giving notice to the International Patent Office. Where the application survives any pre-grant opposition challenge or no such challenge is brought, an International Patent will be granted.

As is currently the case with national patents, the grant of an International Patent shall be a prima facie indication of its validity, but not a guarantee. Post-grant opposition can be instigated by anyone who seeks revocation of an International Patent after it has been granted. Appeals from the International Patent Office's decisions on both pre-grant and post-grant opposition can be appealed to the International Patent Court, whose decision as to patentability is final.

Where the validity of an International Patent is challenged in infringement proceedings before a national court, the invalidity claim must be referred to the International Patent Office for adjudication and the national court proceedings are to be stayed until a decision on the claim for revocation is handed down.

4. The International Patent Court

The proposed International Patent Court is to function as an appeal court with a discrete and limited, but exclusive, jurisdiction. Its sole role is to consider appeals from the International Patent Office on pre-grant and post-grant oppositions. To be clear, the International Patent Court is to have no role in patent infringement proceedings or in actions in which a declaration of non-infringement is sought, as those matters remain the province of national legal systems. Thus, unlike in the European system, there is no scope in this proposal for an appeal from a court at the apex of the court hierarchy of a national legal system to a supranational court.

Appeals from decisions of the International Patent Office shall be reviewed de novo, such that fresh evidence may be tendered. Proceedings of the court shall be conducted in English, the language of the proposed International Patent system. It is expected that the International Patent Court will operate more efficiently and deliver decisions more quickly than the courts in many member states. The International Patent Court's decisions as to patentability are final and subject only to any appeal to the Appeal

Division of that court. Given the court's exclusive jurisdiction in this regard, national courts will have no power to decide questions of patent validity or to review decisions of the International Patent Office.

Investing a court with these kinds of limited and specific powers is not without precedent. For instance, German law does not provide a procedural means for initiating a claim or a counterclaim for a declaration of invalidity in regular courts.[30] A German patent's validity may only be challenged in a proceeding before the German Patent and Trademark Office (the Deutsches Patent und Merkenamet),[31] appeals from which lie to the German Federal Patent Court (the Bundespatentgericht).[32] The German Federal Patent Court only hears appeals of this kind and has no role to play in infringement proceedings.

If the validity of an International Patent is at issue in a national court, the court will be empowered to grant a stay of its proceeding to allow a challenge to the patent's validity to proceed before the International Patent Court, if the national court considers that the challenge appears to have merit. If the court takes the view that the invalidity claim lacks merit, it will refuse to grant a stay and will continue to determine the infringement proceeding.

It is not proposed that the International Patent Court be comprised of divisions to service various regions around the world. What is proposed is a single court located in one place. The location of the International Patent Court (and its Registry) shall be agreed on by the member states. The location of the Registry shall be largely immaterial because all communications with the Registry and filings shall be conducted electronically. The advantage in having a single court without regional divisions is that the court will more likely produce uniformity in its decisions and its application of the patentability standards, rather than regional peculiarities. This in turn will preclude forum shopping by patent applicants who might choose a division of the court in which to file.

The international body that administers the International Patent Treaty shall appoint judges that sit on the International Patent Court. These judges shall be drawn from the ranks of patent specialist jurists from national courts and must have an excellent command of the English language.

Parties before the International Patent Court may appear in person or be represented by lawyers authorized to practice before a court of a member state or alternatively by a patent attorney or patent agent entitled to practice

30. MARKETA TRIMBLE, *supra* note 1, at 69.

31. *See* DEUTSCHES PATENT UND MERKENAMET, http://www.dpma.de (last visited Dec. 11, 2014).

32. *See* BUNDES PATENT GERICHT, https://www.bundespatentgericht.de/cms/ (last visited Dec. 11, 2014).

in a member state. Video and telephone conferencing facilities should be available to facilitate hearings (as is available for hearings before most national patent offices). Corporate entities may be represented by an employee or officer.

It is expected that law firms and patent attorney firms will respond to this structure by opening offices in the location of the International Patent Court or enter into agreements with affiliates that have offices where the International Patent Court is located.

5. Peer-to-Patent-style third party contributions

To leverage the best available resources to improve patent quality, a further aspect of the proposal is a Peer-to-Patent-style third party notification system, the purpose of which is to allow and encourage citizen-experts to put relevant prior art references before patent examiners.

Peer to Patent is a means by which a community of self-selecting volunteers can work collaboratively to identify prior art relevant to selected pending patent applications. Those communities of citizen-experts use an online forum to read pending patent applications, search for and identify relevant prior art documents, and submit relevant prior art to a national patent office. The most relevant prior art documents selected by the community are then placed before the examiner to be used to assist the examination. The input of these third party citizen-experts can be of great value in improving patent quality because it has the potential to bring relevant prior art to the attention of examiners who might not otherwise locate it.[33]

To date the various Peer to Patent projects have operated in conjunction with national patent offices and have sought input from the community on various patent applications before those national offices. The International Patent System proposed presents an opportunity to consolidate those communities of citizen experts that have hitherto been organized along national lines and focus them on the task of locating prior art relevant to one set of patent applications. This will remove the possibility of different national Peer to Patent projects duplicating effort in conducting prior art searches in respect of the same invention claimed in different jurisdictions, and remove the difficulties of maintaining a critical mass of peer reviewers.[34]

As such, to take full advantage of the opportunities for public review that are available, it is proposed that the International Patent System described in this article must allow third party Peer to Patent style contributions. The proposal thus involves the International Patent Office

33. *See generally* BETH SIMONE NOVECK, WIKI GOVERNMENT: HOW TECHNOLOGY CAN MAKE GOVERNMENT BETTER, DEMOCRACY STRONGER, AND CITIZENS MORE POWERFUL (Brookings Inst. Press 2009); Beth Simone Noveck, *'Peer to Patent': Collective Intelligence, Open Review, and Patent Reform*, 20 HARV. J.L. & TECH. 123, 158 (2006).

34. For an example of Peer to Patent projects, see generally Brian Fitzgerald et al., *Peer-To-Patent Australia: First Anniversary Report*, QUEENSLAND U. OF TECH. 1 (Dec. 2010), http://www.peertopatent.org/wp-content/uploads/sites/2/2013/11/P2PAU_1st_Anniversary_Report.pdf.

creating a means by which third party volunteers are permitted to make prior art submissions online that will be put before and considered by the examiners during examination. It is also proposed that prior art submissions be permitted for the use in both pre- and post-grant opposition proceedings before the International Patent Office.

B. Substantive Law Harmonization and a Single Centralized Examination

Having a single unitary patent and a single international patent office to conduct all patent examinations requires substantive law harmonization of patentability requirements and the law in respect of infringement and remedies. However, in order to achieve the consensus needed to bring this proposal to fruition, it is necessary that member states be permitted to retain a degree of flexibility in regard to the divisive issue of the scope of patentable subject matter.

1. Harmonization of patentability requirements

What is proposed in this regard is that the International Patent Treaty create a single test for patentability in line with the requirements presently set out in Article 27 of the TRIPS Agreement, but that it also permit member states to legislate that patents for certain classes of invention (to be set out in a list permitted patentable subject matter exclusions) are not enforceable in their jurisdictions. That is, subject matter exclusions are to be applied at the national level during infringement proceedings, and not at the international level during examination.

Article 27.1 provides that, subject to certain exceptions, "patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application." Thus, it is proposed that the International Patent Office examine an International Patent Application to test whether the invention is novel, involves an inventive step (non-obviousness), and is capable of industrial application (utility), in addition to the requirements that the invention falls within the bounds of patentable subject matter and that the invention is sufficiently disclosed in the patent specification.

Insofar as patentable subject matter is concerned, it is proposed that the International Patent Office apply a broad and unrestricted subject matter eligibility threshold similar to that observed in United States law. In this regard, it is proposed that the International Patent Treaty define the scope of patentable subject matter in terms that reflect the sentiment expressed in *Diamond v Chakrabarty* that patentable subject matter comprises "anything under the sun that is made by man." [35]

However, it is also proposed that member states retain the right to legislate to not allow certain classes of invention to be enforced within their territories. These classes of permissible excluded matter will be identified in

35. 447 U.S. 303, 309 (1980) (quoting S. REP. No 1979, 82d Cong., 2d Sess., 5 (1952); H.R. REP. No. 1923, 82d Cong., 2d Sess., p. 6 (1952)).

the International Patent Treaty, and would necessarily include (to list a few) business methods, human beings and other living organisms, genes, computer software, and methods of medical treatment and diagnosis. In short, this aspect of the proposal allows member states the freedom to implement domestic laws that, while not denying an International Patent's validity, make certain classes of International Patent not enforceable in their territories.

This would seem to be a key element in achieving international consensus as it allows member states to retain control of potentially deal-breaking issues of patentable subject matter in a way that serves the interests of both developed and developing countries.[36] By leaving these kinds of possibly divisive patentable subject matter issues to national legislatures and courts, there is scope for allowing recognition of particular national or regional interests, making the proposal more likely to achieve consensus.

This approach involves the application of the broadest conception of patentable subject matter at the international level, which means that many of the difficult and contentious patent eligibility cases like those considered in *Bilski v. Kappos*,[37] *Diamond v. Chakrabarty*, and *Alice Corp v. CLS Bank*,[38] will in the future be determined by the International Patent Office according to an international patentability standard set out the International Patent Treaty, rather than by national courts. What national courts will be asked to determine will be the meaning and scope of the permitted categories of excluded matter. For instance, a country that legislates to not permit International Patents concerning business methods to be enforced within its territory will need to determine what falls within the scope of that excluded class.

In accordance with this international patentability test, novelty and inventive step are to be assessed with regard to an absolute or global prior art base. It is proposed that novelty and inventive step in relation to acts done be considered in opposition proceedings only rather than in examination. Ensuring that the prior art base includes acts done, as well as documents, provides a means of rejecting or opposing an International Patent Application for want of novelty or inventive step on the grounds that what is claimed in the application has been done before, or is obvious in light of what has been done before, even in cases where those acts have not been documented (which may offer a greater protection from the propertization of

36. Nation states would, of course, have the ability to enter into bilateral or multilateral treaty obligations that dictate that certain classes of invention will be enforced in the jurisdictions of member states.

37. 561 U.S. 593, 612 (2010).

38. 134 S. Ct. 2347, 2352 (2014).

traditional knowledge by outsiders). In terms of novelty, the system shall be a first-to-file system.

There is scope for the system to incorporate a grace period. A grace period excuses any self-publication by the inventor or applicant within a certain period preceding the filing of a patent application.[39]

In the interest of achieving an international consensus, the United States would either need to abandon its best mode requirement (whereby the description of the invention is to disclose the best mode for carrying out the invention known to the applicant)[40] or convince countries that do not have an equivalent of its merits. The recent Australian decision of *Les Laboratoires Servier v Apotex Pty Ltd*[41] highlights the value of a best mode (or in the Australian parlance, best method) requirement, being that a failure to disclose the best mode known to the applicant of performing the invention potentially leaves a large field for experiment for anyone wishing, say after the expiry of the statutory monopoly, to achieve the same results as the applicant has achieved through using the patented invention. That is, in some cases, a failure to disclose the best mode of performing an invention can in effect amount to a failure to adequately disclose the invention to an unwitting public that is saddled with the patentee's monopoly.

Given the expansive geographic protections recommended in this article, compulsory licenses will be a necessary feature of the proposed system. Compulsory licenses must be available where: (1) there has been a failure to exploit the invention in a jurisdiction in a way that satisfies the reasonable requirements of the public; and (2) attempts to obtain a license under reasonable commercial terms have failed.[42] This aspect of the proposal aims to encourage voluntary licensing of patents in places where the inventor would not ordinarily commercially produce the invention immediately or promptly. This is not to penalize patentees, but is simply a means of promoting access to new technologies on equitable terms. It is proposed that to seek a compulsory license to use an International Patent in a particular country or countries, a person must apply to a national court after a period of three years has lapsed since the patent was granted. The amount of compensation can set by the court, agreed between the patentee and licensee, or determined through arbitration.

39. See, e.g., 35 U.S.C. § 102(b)(1) (2015).

40. 35 U.S.C.S. § 112 (2008).

41. [2016] FCAFC 27 (Austl). *See also* British Dynamite Co v. Krebs [1896] 13 R.P.C. 190, 192 (UK).

42. Paris Convention, *supra* note 11, art. 5(A)(2); TRIPS Agreement, *supra* note 22, art. 31.

The International Patent Treaty should give member states latitude in determining the circumstances under which compulsory licenses can be used in response to matters of public health and national emergency. In particular, they should have a degree of latitude to award compulsory licenses to permit the importation of pharmaceuticals manufactured in other countries to address national health emergencies.

It is envisaged that the International Patent Treaty would recognize rights based on prior use of the invention as a defense to a patent infringement allegation, in line with the way rights of prior user are recognized in most countries today. Prior user rights provide a defense to patent infringement to a person who was using the patented invention before the patentee filed a patent application or publicly disclosed the invention.[43] For a prior use defense or exception to infringement to apply, the act must constitute a patent infringement. Non-infringing acts, such as acts done privately for non-commercial purposes or acts done for experimental purposes relating to the invention do not constitute a prior use that gives rise to the defense. Naturally, an act done in public that amounts to an enabling disclosure is a prior disclosure of the invention, which anticipates the invention and deprives it of novelty and renders the patent invalid. In this instance, there would technically be no infringement and the prior user would be free to use the invention on the basis that the patent is invalid.

Finally, it is not proposed that courts be empowered to award punitive damages, which are available in cases of willful infringement in the United States but not elsewhere in the world,[44] although this is a matter for member states to resolve when negotiating the International Patent Treaty. Further, it is envisaged that the issue of whether criminal sanctions be available for intentional and commercial-scale patent infringement is to remain a matter for member states.

2. Harmonization of laws in respect of infringement and remedies

Regardless of which jurisdiction a patent infringement suit is brought in, International Patents must be considered against the same infringement rules. The notion of infringement shall be based, as it is now, upon a person or entity other than the patentee exercising any of the exclusive rights reserved to the patentee without the patentee's authorization.[45]

43. 35 U.S.C § 273 (2011).
44. 35 U.S.C. § 284 (2000).
45. TRIPS Agreement, *supra* note 22, art. 28, 31; 35 U.S.C. § 271 (1994).

One important issue in respect of enforcement is exhaustion of a patentee's rights. In a system in which there are unitary patents of global effect, a patentee's rights are logically exhausted when a patented invention is put on a market with the patentee's consent, and the patentee has no rights to prevent products embodying the invention being exported to a new market. This would create difficulties for International Patents over products such as pharmaceuticals, for which price discrimination between jurisdictions is ordinarily employed. In contrast, using a national exhaustion principle, the patent holder can prevent importation into a different country by asserting a separate patent in the country into which the product is to be imported.[46] It would thus seem to be necessary for the International Patent Treaty to provide a means of permitting price discrimination, say between developed and developing countries (to permit lower prices to be charged for the product in developing countries).

Uniformity of the remedies available in patent infringement suits is necessary to facilitate cross-border patent disputes by allowing a court in one jurisdiction to adjudicate upon patent infringements occurring both within that court's territorial jurisdiction and in other jurisdictions. It will also deter forum shopping.

In addition to the usual remedies of damages or an account of the defendant's profits obtained by using the patented invention, it is proposed that the International Patent Treaty specifically provide national courts with the power to grant both interlocutory and final injunctions when a defendant infringes an International Patent in multiple jurisdictions. In these circumstances, it is proposed that national courts be empowered to order that the defendant be enjoined from engaging in conduct that infringes an International Patent, without concern as to whether that enjoined conduct is likely to occur outside its jurisdiction's borders. This is an order without geographic limitation since an International Patent has effect in all member states.

In the current system, there are two difficulties associated with injunctions in cross-border cases. The first is that courts are reluctant to grant injunctions when they have no means of ensuring the defendant's compliance with the order. The second is that a court will not grant an injunction if it believes the terms of that order may cause a conflict with the laws of the second country.

It is suggested that difficulties of this nature are of limited concern in this proposal because the effects of substantive law harmonization make it

46. Barton, *supra* note 1, at 351.

feasible for the courts in all member states to have the power to enforce each other's orders. If a court in Country A grants an injunction prohibiting Party B from engaging in certain conduct, and Party B travels to Country B and continues to engage in that conduct, then the courts in Country B will have personal jurisdiction over Party B and can enforce any injunction awarded by Country A's courts.

Given the substantive law harmonization proposed in this article, the likelihood of an order made by the courts of one country causing a conflict with the laws of a second country is minimal. The only exception is that the courts in one member state should not seek to enforce an International Patent in another member state if the second member state does not allow the patents of that class to be enforce within its borders (because it has enacted a permissible subject matter exclusion).

It is also necessary that national courts be empowered to grant provisional and protective remedies to maintain the status quo pending the determination of a trial. These might include: orders to prevent an (imminent or continuing) infringement occurring or continuing to occur (an interlocutory injunction); orders to preserve relevant evidence in regard to the alleged infringement; orders to seize goods suspected of infringing; and orders directing a party to provide information about the location of assets which are subject to an order.[47]

Also required is harmonization of the law in regard to patent claim construction, which in turn will affect the way in which patent claims are drafted. In this regard, what is required is that a decision as to whether International Patents be drafted by means of central claiming (by which the claims identify the "center" of the patented invention), or peripheral claiming (where the claims identify the exact periphery or boundary of the patent, usually by listing its necessary characteristics).[48] What is essential in this regard is that patents and patent enforcement laws be uniformly interpreted by national courts.[49] It is also proposed that nation states implement a legal requirement that their courts enforce a doctrine of equivalents,[50] although this will naturally be a point of negotiation for member states.[51]

47. European Max Planck Group on Conflict of Laws in Intellectual Property, *Principles for Conflict of Laws in Intellectual Property*, Art. 2:501(3), www.imprs-ci.ip.mpg.de/_www/files/pdf2/draft-clip-principles-25-03-20117.pdf (last visited Mar. 16, 2016).

48. Dan L. Burk & Mark A. Lemley, *Fence Posts or Sign Posts? Rethinking Patent Claim Construction*, 157 U. PA. L. REV. 1743, 1743-47 (2009).

49. *See generally* TRIMBLE, *supra* note 1.

50. Royal Typewriter Co. v. Remington Rand, Inc., 168 F.2d 691, 692 (2d Cir. 1948).

51. Burk & Lemley, *supra* note 48, at 1763.

C. Enforcement in National Courts

This third part of the proposal is that enforcement and related matters remain the exclusive concern of member states and their courts. The role of national courts will be to hear infringement proceedings, proceedings in which declarations of non-infringement are sought and proceedings in which claims for unjustified threats of patent infringement are made. As a consequence, the International Patent Court will have no power to adjudicate in respect of these matters. As noted previously, the role of the International Patent Court will be limited to adjudicating on matters of patent validity.

There are several reasons for favoring national courts for these tasks. Firstly, investing national courts with these powers allows litigants to access courts that are geographically proximate to their business activities and where they live, and which have familiar procedures. Secondly, this allows member states the flexibility to maintain subject matter exclusions within their territories. Finally, it is considered that the establishment of a world patent court with enforcement powers is a bridge too far at this time given nation states' desires to maintain national sovereignty.[52] This approach is arguably preferable to an international court comprised of regional divisions that may develop regional peculiarities that lead to a lack of consistency across divisions.

An important aspect of this part of the proposal is that, with some exceptions, national courts will have the power to hear and determine cross-border patent infringement suits where the acts of infringement are alleged to have occurred not just within the court's territorial jurisdiction, but also outside. It is also proposed that, in addition to the power to make awards of damages or account of profits in respect of foreign infringements, those courts be expressly given the power to grant both interlocutory and final injunctions of extraterritorial effect that will be recognized outside their borders.[53]

Ensuring that national courts are empowered to hear cross-border patent disputes overcomes some of the significant difficulties patentees who seek to enforce their patents in many jurisdictions currently face. It is at present difficult to enforce a patent outside the country in which it was granted because many courts generally decline to consider questions that arise in relation to foreign patents. Many courts generally refuse to adjudicate claims

52. This is not a view that is shared by all, *see* Mossinghoff & Kuo, *supra* note 14, at 546-48.

53. In some places this happens already. Courts in the Netherlands have issued extraterritorial injunctions in response to the infringement of foreign patents in foreign countries using a procedure known as *kort geding*: see CHRISTOPHER WADLOW, ENFORCEMENT OF INTELLECTUAL PROPERTY IN EUROPEAN AND INTERNATIONAL LAW 14-20 (1998).

that a foreign patent has been infringed because the patent can only be enforced if it is valid, which brings the patent's validity into issue. Patent validity is often pleaded in a counterclaim for revocation or as a defense.[54] This proposal avoids the current need for a multiplicity of proceedings by removing the territorial nexus of patents, coupled with the substantive law harmonization it achieves (in terms of patentability standards and the law in respect of infringement and remedies). This substantive law harmonization facilitates the resolution of cross-border infringement disputes in a single court because it removes any possibility of a conflict of laws arising, and thus obviates any need for a court to apply either choice of law rules or foreign law, other than in respect of patentable subject matter exclusions a foreign state may have imposed.

It is proposed that the International Patent Treaty set out rules governing the way cross-border disputes are managed, coordinated and enforced between the courts in member states. The rules will govern:

(a) jurisdiction, including the circumstances in which a national court may assume jurisdiction in a multi-national cross-border patent infringement suit, and any circumstances in which it must decline to exercise jurisdiction;
(b) a court's power to grant a stay when a defendant claims in infringement proceedings that the International Patent being asserted is invalid;
(c) the coordination of parallel proceedings involving the same parties and issues;
(d) recognition and enforcement of foreign judgments; and
(e) the management of litigation involving patent infringement claims and other non-patent claims.

The aims of these rules must be to, firstly, prevent a multiplicity of parallel proceedings in respect of the same International Patent in several national courts (and in doing so, remove the possibility of courts in different member states rendering irreconcilable decisions). Secondly, the rules must facilitate the mutual recognition and enforcement of decisions rendered by courts in member states. Each will be considered in turn as follows.

54. Jan K. Voda, M.D. v. Cordis Corp., 476 F.3d 887, 899 (Fed. Cir. 2007); Stein Assocs, Inc. v. Heat & Control, Inc., 748 F.2d 653, 658 (Fed. Cir. 1984) ("Only a British court, applying British law, can determine validity and infringement of British patents."); Potter v. Broken Hill Pty Co Ltd [1906] 3 C.L.R. 479, 479 (Austl.); Gesellschaft für Antriebstechnik mbH & Co KG (GAT) v. Lamellen und Kupplungsbau Beteiligungs KG (LuK) [2006] E.C.R. I-6509, I-6529-30 (Ger.).

1. Jurisdiction and recognition and enforcement of foreign judgments

The proposed International Patent Treaty requires definitive rules for establishing personal jurisdiction in matters involving an International Patent, regardless of the forum in which the matter is heard. These are rules that are to be applied when deciding whether a national court has jurisdiction to hear and determine a dispute involving an International Patent. These rules should exclude the operation of national laws within any member state that are relevant to establishing personal jurisdiction. The International Patent Treaty should also provide rules that govern the circumstances under which a court in a member state must recognize the judgment of a foreign member state in a matter involving an International Patent.

The rules regarding personal jurisdiction will be necessarily tailored to a defendant's convenience. For obvious reasons, a defendant will usually prefer to be sued where he or she resides or where the facts giving rise to the plaintiff's lawsuit occurred – and principles of fairness dictate that this be so. While it is not desirable to formulate precise rules for the purposes of this article, it is proposed that (at a minimum) a national court only have personal jurisdiction in a matter involving an International Patent if the defendant has "sufficient minimal contacts" with the forum state, such that the proceeding does not offend notions of fairness and justice. This formulation mirrors the notion of personal jurisdiction described in *International Shoe Co. v. Washington*.[55] Such minimal contacts should likely include consideration of matters such as the defendant's domicile or habitual residence, the defendant's center of operations, places where the defendant sells products or provides services, and the place where the infringing activity occurred. If an expansive concept of personal jurisdiction of this kind is adopted, it is envisaged that the International Patent Treaty will not need a provision enabling a form of "long-arm" jurisdiction, which is a means of empowering courts to assert personal jurisdiction over out-of-state defendants. The rules establishing a court's jurisdiction will also need to take into account the possibility of an action involving multiple defendants.

It is further proposed that the International Patent Treaty contain a provision which stipulates that a defendant can object to the plaintiff's choice of forum on the ground that it is an inappropriate venue for the hearing of the dispute, even though the court may validly assert personal jurisdiction. This provision should stipulate the matters to be considered in determining whether a plaintiff's chosen forum is inappropriate. Those matters can be taken from the existing law in respect of *forum non conveniens*, and arguably

55. 326 U.S. 310, 316 (1945).

ought be based on the factors described in *Spiliada Maritime Corp. v. Cansulex Ltd*.[56] The approach adopted in that case was that a stay of proceedings will only be granted where there is a more appropriate forum available for the trial of the action, and that a continuation in the forum would be oppressive or vexatious. It is not sufficient to show that the forum court is not the natural or appropriate forum for the trial. A natural forum for a dispute is one in which the action has a real and substantial connection.[57]

The International Patent Treaty should further stipulate that a national court will have jurisdiction if the defendant proceeds on the merits without contesting the court's jurisdiction, and that the defendant has the right to contest jurisdiction no later than the time he or she files a first defense on the merits. It should also stipulate that, if defendant does not appear to contest the merits at trial, the court may enter judgment in his or her absence, provided that it is satisfied that the plaintiff's assertions that the court has jurisdiction have merit. Otherwise, the procedural rules in the forum state will apply to determine how the proceeding is to be conducted.

Finally, the International Patent Treaty will need to stipulate the circumstances under which a party can enforce a foreign judgment in respect of an International Patent in the courts of a member state. Those circumstances, at a minimum, should be that: (1) the judgment was not obtained fraudulently; (2) the parties had an opportunity to be heard in the court in which the judgment was obtained; and (3) the foreign court had personal jurisdiction over the defendant.

In terms of subject matter jurisdiction, a court in a member state that has jurisdiction in respect of patents will necessarily have the power to hear matters involving an International Patent, other than matters relating to validity. However, it may happen that patent infringement claims are pleaded in conjunction with contract (or other related) claims in a single proceeding. In most instances, it will be desirable for one court to have jurisdiction over the infringement claims as well as the related claims. Consequently, it is proposed that the International Patent Treaty provide that courts in member states have jurisdiction to hear infringement claims that arising out of a contractual relationship concerning the International Patent in question, and that resulting decisions be recognized in other member states.

56. [1987] A.C. 460 (UK).
57. *Id.* at 476.

2. Defendants claiming invalidity in infringement proceedings

Given this proposal's separation of the roles of national courts to conduct enforcement proceedings and the International Patent Office to conduct opposition proceedings where an International Patent's validity has been challenged, there must be a means of managing those proceedings when a defendant challenges the validity of an International Patent in a proceeding before a national court.

If a defendant challenges an International Patent's validity in a proceeding before a national court, and the court forms the view that the challenge appears to have merit, the national proceeding is to be stayed while the challenge to validity is referred to an expedited post-grant revocation hearing by the review panel of the International Patent Office. The national court's stay shall remain in place until the result of the International Patent Office's review is relayed to the court. As decisions of the International Patent Office are subject to appeal to the International Patent Court, the stay shall remain in place until any appeal to International Patent Court on matters of patentability is determined or the time period in which a party can seek such an appeal has expired, whichever occurs first.

To ensure that validity challenges do not unnecessarily delay infringement proceedings, it is proposed that a limit of 60 days be imposed, within which a party asserting that an International Patent is invalid must seek an expedited opposition hearing by the review panel of the International Patent Office.

A national court's decision to grant a stay affects only the proceeding before it and it does not prevent a person mounting a validity challenge in the International Patent Office if the national court does not grant the stay. If a court refuses to grant a stay when one is requested and proceeds to consider the question of infringement, the court's decision is subject to any later decision on validity handed down by the International Patent Office or the International Patent Court on appeal. In essence, this means that if the court rules that there has been an infringement, but the patent is later revoked, the court's decision will be nullified. In any event, a court that declines the grant of a stay in the face of a validity challenge being mounted before the review panel of the International Patent Office must stay any judgment it enters in favor of a patentee. In urgent matters, a national court does not necessarily need to delay its proceeding by issuing a stay when a challenge to the patent's validity is raised; it might proceed to consider the infringement allegation at trial and simply stay the enforcement of its final decision until the International Patent Office's review of the patent has run its course and the appeal period has expired. Otherwise, the national court might make a final

ruling on the condition that the plaintiff undertake to compensate the defendant for any loss suffered as a consequence of the plaintiff exercising its rights in the judgment if the patent is later ruled to be invalid. This aspect of the proposal removes the threat of Italian or Belgian "torpedoes," which are invalidity proceedings in which declaratory judgment is sought, that are purposely filed in slow courts for the purpose of delaying faster courts in rendering decisions on infringement.[58]

In urgent matters, such as interlocutory matters, a national court can grant injunctive relief before a review of the patent's validity takes place upon an undertaking as to damages,[59] or a suitable security or bond, being given by the plaintiff.[60] Any award of injunctive relief does not need to be stayed in the event that a challenge to the validity of the International Patent in question is commenced.

3. Coordination of parallel proceedings involving the same parties and issues

The proposal requires a means of coordinating parallel infringement proceedings in national courts. The system must be capable of dealing with circumstances of *lis alibi pendens*. This is a situation in which there are concurrent proceedings involving the same subject matter pending between the same parties in different jurisdictions at the same time.

It is proposed that the International Patent Treaty contain a provision to the effect that the court first seized of jurisdiction has priority in all matters other than in cases involving an abuse of process. This emulates the position under the Brussels-I-Regulation.[61] Courts later seized must stay their proceedings and await the determination of the court first seized, unless it is manifest that the judgment of the court first seized will not be recognized in the jurisdiction of the court later seized. For example, where Party A brings suit in Country A alleging that unjustified threats have been made, and later Party B brings suit in Country B alleging infringement, a *lis pendens*

58. For an explanation as to what Italian or Belgian "torpedoes" are see: David Kenny & Rosemary Hennigan, *Choice-Of-Court Agreements, the Italian Torpedo, and the Recast of the Brussels I Regulation*, 64 INT'L & COMP. L. Q. 197, 199 (2015).

59. An undertaking as to damages is a promise to pay appropriate compensation for any injury caused by these measures for which the undertaking is provided.

60. TRIPS Agreement, *supra* note 22, art. 50(3).

61. Council Regulation 44/2001, of 22 December 2000 on Jurisdiction and the Recognition and Enforcement of Judgments in Civil and Commercial Matters, 2001 O.J. (l12) 1 (EC). *See also* Convention on Jurisdiction and the Recognition and Enforcement of Judgments in Civil and Commercial Matters, Dec. 21, 2007, O.J. (L 339) 11.

situation arises and the first-in-time principle applies and the first proceeding takes precedence.

Finally, once a national court with jurisdiction to hear an infringement suit issues a final decision, that issue becomes *res judicata* and the plaintiff is then estopped from bringing that issue before another court.

4. Capacity of national courts to handle patent litigation

Although fairness requires that infringement proceedings be conducted in a forum that is convenient for the alleged infringer, not all national courts are capable of managing the complexities and difficulties of patent litigation. Further, not all legal systems are reliable and not all member states will agree to accede to a system that potentially places their nationals at the mercy of orders emanating from foreign court systems that are perceived as being unreliable. For this reason, it is proposed that in some instances, special regional patent courts comprised of international patent experts be established to conduct the workload of some countries' patent litigation. The alternative is that only certain existing national courts that are part of an internationally trusted legal system be granted the right to entertain cross-border patent disputes, and that other national courts only have the power to hear and determine disputes concerns allegations of infringement occurring within their own borders.

D. Language

As noted above, the major impediment to the establishment of a truly international patent system is language – namely, the need to reach a diplomatic consensus that addresses the practical necessity to designate a language in which patent applications are drafted, published, examined and challenged. Thus, the most contentious aspect of this proposal is its recommendation to adopt English as the one and only official language of the international patent system.[62]

There are prominent concerns in this regard. The first is the need to be wary of placing language barriers in the way of those who wish to obtain patent protection, particularly those who, in the absence of this proposal, would only seek patent protection in their country of residence and perhaps neighboring countries where the same language is spoken. The second is to

62. This proposal is not alone in this regard, as other authors have proposed English as the only language of an international patent system but make no mention of the possibilities of reliable machine translation. *See* Mossinghoff & Kuo, *supra* note 14, at 551-52. Meller, *supra* note 3, at 384.

not unfairly disadvantage those alleged of patent infringement by having the patent specifications written in a language that is incomprehensible to them.

In relation to the first of these issues, it is proposed that the International Patent Office use only one language because it is unwieldy for more than one to be used. Even using a selection of languages, as the EPO does, is unwieldy (the EPO uses three official languages – English, French and German).[63]

English is the obvious choice to be the one and only official language of the international patent system. It is the global lingua franca of science and is the primary language of scholarship throughout a world that is in many ways dominated economically, scientifically and culturally by Anglo-American countries.[64] English was described by The Economist in 1996 as being "impregnably established as the world standard language: an intrinsic part of the global communications revolution."[65] David Graddol has predicted that no other language will rival English as the dominant world language in the 21st century.[66]

English is a truly international language. Although English is not the most widely spoken language on Earth, today it is the first language of about 400 million people and the second language of as many as 1.4 billion more.[67] English is the logical choice because it has been the internationally dominant language through the nineteenth, twentieth and twenty-first centuries as a result of the political, economic and cultural might of Britain and the United States during that time in the way that languages such as Greek, Latin, Arabic and Spanish and French were in earlier times.[68] Moreover, David Crystal has expressed the view that the prevalence of international collaboration renders it necessary that the world adopt a global lingua franca as a "working language" to cut down the impracticalities of multi-way translations.[69]

63. Implementing Regulations to the Convention on the Grant of European Patents art. 14, Oct. 5, 1973, 1065 U.N.T.S. 255 [hereinafter European Patent Convention] (European patent applications shall be filed in one of the official languages or, if filed in any other language, translated into one of the official languages in accordance with the Implementing Regulations).

64. DAVID GRADDOL, THE FUTURE OF ENGLISH? A GUIDE TO FORECASTING THE POPULARITY IF THE ENGLISH LANGUAGE IN THE 21ST CENTURY 5-9 (The English Co. 1997); Donna E. Cromer, *English: The Lingua Franca of International Scientific Communication*, 12 SCI. & TECH. LIB. 21, 21-23 (1991); DAVID CRYSTAL, ENGLISH AS A GLOBAL LANGUAGE 68-69 (Cambridge Univ. Press, 2nd ed., 2003).

65. *Language and Electronics: The Coming Global Tongue*, THE ECONOMIST, Dec. 21, 1996, at 78.

66. GRADDOL, *supra* note 64, at 58.

67. *Id.* at 6.

68. *Id.* at 9-10.

69. *Id.* at 12.

Furthermore, English has more cultural resources in the form of literary works, films and television programs than any other language.[70] Likewise, authors of scientific works place great emphasis on publication in international journals with an attractive impact factor, most of which are English-language journals.[71] Some countries are actively taking steps to publish their scientific works in English. "China, for example, has an agreement with the German publisher Springer . . . to select the best articles from more than 1,700 Chinese [scholarly] university journals and translate them into English."[72] "Similarly, Czech, Hungarian and South Korean journals [that have been] indexed by Thomson Scientific . . . are almost all published in English."[73] As a consequence, most prior art documents that are relevant to the issue of whether a claimed invention is novel or involves an inventive step are likely to be written in English.

Another benefit of the English language is that it is an official language of two of the "big four" patent offices, namely the USPTO and the EPO. In addition, both the Japanese and Chinese patent offices require their patent examiners to be fluent in English.[74] Thus, there are already a large number of experienced patent examiners and other patent office staffers who are native speakers or who have professional experience in using the English language.

Although choosing the English language will only further entrench its dominant position as the global language of science and commerce, doing so will make some head way in solving the problem of uncovering the "lost" science hidden in languages unfamiliar to the English-speaking scientific community.[75]

Many commentators who seek this kind of procedural efficiency advocate reversing the EU's present commitment to multilingualism in favor of adopting English as lingua franca. Jürgen Habermas sees the EU's policies of "linguistic diversity . . . as a hindrance to economic progress or political integration and real democracy.".[76] Similarly, Theo van Els has explained

70. GRADDOL, *supra* note 64, at 2.

71. Rogerio Meneghini & Abel L. Packer, *Is there Science Beyond English?*, 8 EMBO REPS. 112, 113 (2007).

72. *Id.*

73. *Id.*

74. Mossinghoff & Kuo, *supra* note 14, at 552.

75. *See generally* W. Wayt Gibbs, *Lost Science in the Third World*, 273 SCI. AM. 92 (1995); Meneghini & Packer, *supra* note 71, at 113.

76. Ulrich Ammon, *Language Conflicts in the European Union*, 16 INT'L JOURNAL OF APPLIED LINGUISTICS 319, 322 (2006) (stating Jurgen Habermas, a German sociologist and philosopher, supports the idea of a single institutional working language, and has proposed English as the necessary unifying language).

that making English the sole working language of the EU holds advantages for non-native English speakers.[77] The first is that non-native speakers "need to develop competence in one foreign language only."[78] The second is that "this one foreign language will also become – and to an increasing extent – the property of the non-natives" and that "[i]f they constitute a large majority, as in the EU, they will, without doubt, use the working language as their language and share in the fashioning of this language to meet their own needs."[79] However, van Els posits that, "this appropriation of the working language by non-natives does not take place when there are two or more working languages, and in that case native speakers would not need to give up the ownership of their language."[80]

Machine translation technology is advancing at such a prodigious rate, it is anticipated that the difficulties of language translation will be a thing of the past by the time any treaty implementing this proposal can be made. Currently, machine translation technology is imperfect and the production of reliable translations of complex text containing technical subject matter still requires significant and time-consuming human input. Presently, machine translations are useful for getting a general idea of a text, but are not able to create a precise translation. Translations of complex technical documents, such as patent specifications, still require significant and time-consuming human involvement. However, many companies are making significant advances in this field. Google, Inc. ("Google") offers translation technologies through its Google translate products.[81] It is about to launch a real-time translation service for Skype.[82] Then there is the joint initiative of the EPO and Google called Patent Translate that provides translations "from English, French and German into any of the 28 official languages of the EPO's 38 member states, and vice versa, plus from Chinese, Japanese, Korean and Russian into English, and vice versa."[83]

This aspect of the proposal will not unfairly disadvantage those alleged of patent infringement by having the patent specifications written in a language that is foreign to them because machine translations of

77. *See* Theo van Els, *Multilingualism in the European Union*, 15 INT'L JOURNAL OF APPLIED LINGUISTICS 263, 275-78 (2005).

78. *Id.* at 276.

79. *Id.*

80. *Id*.

81. *E.g.*, GOOGLE TRANSLATE, https://translate.google.com/ (last visited Aug. 15, 2016).

82. *E.g.*, SKYPE, http://www.skype.com/en/translator-preview/ (last visited Aug. 15, 2016).

83. *See* EUROPEAN PATENT OFFICE, https://worldwide.espacenet.com/help?locale=en_EP&method=handleHelpTopic&topic=translation (last visited Dec. 27, 2016).

International Patents will be available from the International Patent Office's website. Enforcement proceedings will be conducted in national courts in the official language of the place where the court is located. Depending on the rules of procedure in the forum, this may, require a translation of the patent into an official language of the country in which the court is located in the event that that language is not English. Otherwise, those courts are free to consider the English-language specification.

To ensure fairness and transparency in the system, the accuracy of a patent translation can be challenged in an administrative proceeding before the International Patent Office. The International Patent Office can then order that changes be made to a translation or that the translation be removed and re-filed. Such a challenge will be grounds for a stay of court proceedings and possibly limit the scope of the International Patent concerned in any jurisdictions affected by the incorrect translation.

IV. INSTITUTIONAL ISSUES

It is envisaged that the International Patent Office would be operated by the World Intellectual Property Organization or a new international organization created specifically for this purpose.

A. Funding and Staffing

The initial funding of the International Patent Office and the International Patent Court would be provided by member states. The countries that believe there is a need for an integrated international patent system, and can afford to do so, will meet the initial establishment costs of the new system.

The on-going costs of the International Patent Office and International Patent Court are to be funded by the patent filing fees and maintenance fees paid by patent applicants. These fees need to be modest to ensure that all inventors have reasonable access to the international patent system. It is proposed that these fees be comparable to the filing and maintenance fees currently applicable to a small number of national applications.[84] It is proposed that there be two tiers of fees: (1) large corporate entities that are heavy users of the patent system (e.g., corporations and their associated entities that together have more than 500 employees); and (2) applicants who do not fall into this category.

84. By way of example, the USPTO's current filing and patent maintenance fees are set out at: *USPTO Fee Schedule*, U.S. PAT. AND TRADEMARK OFF., https://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule (last visited Dec. 27, 2016).

It is not suggested that the International Patent Office be a source of revenue in the way that some national patent offices are currently.[85] Rather, its fee structure should be designed to recoup costs so as to minimize its contribution to the cost of obtaining a patent.

It is proposed that the International Patent Office be responsible for training of examiners, patent review panels, and other patent office staff. Further, it is proposed that International Patent Office also be responsible for the registration of patent attorneys or agents, and the accreditation of universities providing the necessary qualifications for those professions.

B. Commencement and Transitional Arrangements

The proposed system will only be feasible if it has a significant number of members. Accordingly, the International Patent Treaty will enter into force once thirty states ratify it. The world's three most patent intensive countries, China, Japan, and the United States, along with the three most patent intensive states in Europe, Germany, France and the United Kingdom, must be among the states that have ratified the International Patent Treaty before it will enter into force.

Previously granted national patents will remain in force and will be regulated and enforced according to national law until they expire, are revoked, or otherwise cease to exist or have effect.

As a transitional matter, all applicants seeking national patents which are filed prior to the commencement of the proposed international patent system will continue as national applications and will result in the grant of a national patent, unless the applicant elects to convert a national patent application into an International Patent Application, which can be done before any national patent is granted in respect of the invention.

CONCLUSION

Since the formation of the Paris Convention in 1884, the world has slowly but inexorably been moving towards an integrated world patent system. The patent system is evolving from solely being a matter of domestic legislative and administrative concern to one that involves significant multilateral cooperation in a global, connected and integrated world. This proposal is an extension of this evolution. In recent times, that evolution has seen the advent of streamlined workload sharing arrangements between the

85. Barton, *supra* note 1, at 352; *See* Mark A. Lemley, *Rational Ignorance at the Patent Office*, NW. U.L. REV., Feb. 2001, at 1, 25 n.94.

trilateral offices of the EPO, the JPO and the USPTO, and also arrangements between those offices and other national patent offices. As former Director of the United States Patent and Trademark Office, James E. Rogan noted, pressure is mounting on national patent offices with more and more patent applications being filed each year to reach the objective of a truly international patent system.[86]

While there are many obstacles to substantive patent law harmonization, both political and economic,[87] the three core pillars of the proposed global patent system build upon advantageous structures and practices that have been established in domestic legal systems to date. The aims of the proposal are: (1) to make global patenting more accessible; (2) to improve patent quality and the availability of patent and prior art information; and (3) to improve the efficiency of patent enforcement by allowing cross-border patent disputes to be consolidated in national courts.

The path to achieving an integrated global patent system will be a gradual one. Realistically, forming a global patent system of the kind proposed in this article might not be best achieved by conducting negotiations between all possible member states in a UN-like forum, but instead between a few select countries that are especially interested in patent rights. Michael Meller has made the same suggestion, noting that "the 1883 Paris Convention was arrived at" by achieving consensus among "patent conscious countries" before being later adopted across the world.[88] Today's "most patent conscious" countries arguably include, at a minimum, the United States, China, Japan, and European countries, which together produce 90% of the world's patents. The best means forward might be for the proposal to be initially adopted in a small number of technologically advanced developed countries.

Alternatively, it might be that the "global" patent system proposed in this article be adopted only by a subset of the world's countries, while others that do not subscribe to its aims or contents could maintain their existing systems or form other alliances. In that case, as John Duffy has put it, "having four or five competing patent systems may be better than having one hundred."[89]

86. James E. Rogan, Dir., U.S. Patent and Trademark Office, Global Recognition of Patent Rights (Mar. 26, 2002).

87. *See* Anthony D. Sabatelli & J.C. Rasser, *Impediments to Global Patent Law Harmonization*, 22 N. KY. L. REV. 579 (1995).

88. Meller, *supra* note 3, at 382; *See* Michael N. Meller, *Principles of Patentability and Some Other Basics for a Global Patent System*, 83 J. PAT. & TRADEMARK OFF. SOC'Y 359, 361 (2001).

89. Duffy, *supra* note 10, at 691.

In any event, a single, fully integrated, and harmonized world patent system of the kind proposed is needed because traders and consumers around the world rely on trade in global markets. The benefits of a fully integrated international patent system lie in efficiency. Obtaining and enforcing patents must not be prohibitively expensive if we are to take full advantage of the incentives to innovate that patents provide, obtaining and enforcing them must not be prohibitively expensive. While the initial costs of obtaining global patent protection remain excessive, the patent incentive is illusory for those who lack the necessary start-up capital or cannot access it through investors. Until these deficiencies are remedied by the introduction of a properly integrated international arrangement, the patent system will fail to deliver its full potential.