12th Edition 2014

THE ICC INTELLECTUAL PROPERTY ROADMAP

Current and emerging issues for business and policymakers





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Notes

Preface

Intellectual property (IP) continues to be a dynamic and constantly evolving field, closely tied to technological, economic, political and social changes.

The changing geo-economic landscape has led to a growing interest in IP as a strategic tool by business communities in different countries. Governments in various countries are also looking to IP to help build sustainable economic growth, whether they be emerging economies seeking to build up their economic base, or more mature economies wanting to maintain their competitive edge in the global market. The increased ease of communications and travel has also led to more cross-border business – and IP – transactions and exchange. This brings with it the need for a level playing field and coherent rules worldwide. Business can play an important role in helping governments understand the type of IP infrastructure necessary to stimulate the growth of innovative and creative industries and to encourage technology transactions.

The accelerating pace of developments in information and other technologies and the trend towards more collaboration in innovation are all having a major impact on how IP is used, licensed and protected. The emergence of new Internet applications and platforms, the increasing ubiquity of mobile devices and Internet, ever-increasing bandwidth and changing consumer behaviour are making IP owners reconsider their strategies and models for distributing, commercializing and controlling their intellectual assets in the electronic environment.

The role of IP in society – especially patents and copyright – continues to be the subject of lively debate, both at national and international level. The practical workings of IP also continue to be misunderstood. Business has to actively engage in these debates and explain how IP is used in practice to support innovation and creation.

This 2014 edition of ICC's flagship intellectual property publication "The ICC Intellectual Property Roadmap: Current and Emerging Issues for Business and Policymakers" has been restructured to better reflect the way businesses consider and deal with IP, that is, as an asset which can be used to create value for the company, for consumers and for society as a whole, and which has to be managed accordingly. An introductory chapter describing developments with an impact on IP protection is followed by chapters on creating value from IP, obtaining IP assets, enforcing IPR, and the interaction between IP and other policy areas. Each section explains the background and the current landscape as well as provides some perspectives for the future.

Sections on several new topics have been added, including IP management and licensing, patent quality, harmonization and streamlining of trademark rules, trademark restrictions on packaging, non-traditional marks and innovation. Domain names are no longer relegated under trademarks but treated as IP assets in their own right. Other sections have been streamlined to focus on current issues.

The introductory chapter on developments having an impact on IP rights has been extensively updated for this new edition, as have been the sections on trademarks, trade secrets, domain names, litigating IP rights, enforcement on the Internet, counterfeiting, sustainable economic development and climate change.

We hope that the ICC IP Roadmap continues to be a useful reference tool for all those who work in – or need to understand – intellectual property policy, and welcome feedback from readers so that we can continue to improve this publication.

Jean-Guy Carrier Secretary General ICC

David Koris Chair ICC Commission on Intellectual Property

This is the twelfth edition of "The ICC Intellectual Property Roadmap: Current and Emerging Issues for Business and Policymakers", which was first issued in 2000. It draws upon existing ICC positions and is not intended to create new ICC policy. This publication in English and other languages and ICC policy papers cited can be accessed at www.iccwbo.org/products-and-services/trade-facilitation/ip-roadmap.

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Links

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International Corporation for Assigned Names and Numbers	ICANN	www.icann.org
International Treaty on Plant Genetic Resources for Food and Agriculture	PGRFA	www.planttreaty.org
International Union for the Protection of New Varieties of Plants	UPOV	www.upov.int
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United Nations Commission on International Trade Law	UNCITRAL	www.uncitral.org
United Nations Framework Convention on Climate Change	UNFCCC	unfccc.int
World Health Organization	WHO	www.who.int
World Intellectual Property Organization	WIPO	www.wipo.int
World Trade Organization	WTO	www.wto.org

Intellectual property basics

What is intellectual property?

Intellectual property (IP) is a creation of the intellect that is owned by an individual or an organization in the private or public sector which can then choose to share it freely or to control its use in certain ways. IP is found almost everywhere – in creative works like books, films, records, music, art and software, and in everyday objects like cars, computers, drugs and varieties of plants, all of which have been developed thanks to advances in science and technology. The distinctive features that help us choose the products we buy, like brand names and designs, can also fall within the scope of IP.

Even the place of origin of a product can have rights attached to it, as is the case with Champagne and Gorgonzola. Much of what we see and use on the Internet, be it a web page or a domain name, also includes or represents some form of IP.

Why is intellectual property protected and who benefits?

Through a system of intellectual property rights (IPR), it is possible not only to ensure that an innovation or creation is attributed to its creator or producer, but also to secure "ownership" of it and benefit as a result. By protecting intellectual property (IP), society acknowledges the benefits it contributes and provides an incentive for people to invest time and resources to foster innovation and expand knowledge.

The IP system is designed to benefit society as a whole, striking a delicate balance to ensure that the needs of both the creator and the user are satisfied. IPR usually allow the rightsholder to exercise rights over the use of his or her work for a limited period of time. In return for granting such rights, the IP system contributes to society in a number of ways, for example by:

- enriching the pool of public knowledge and culture;
- maintaining fair competition and encouraging the production of a wide range of quality goods and services;
- underpinning economic growth and employment;
- sustaining innovation and creation; and
- promoting technological and cultural advances and expression.

Where suitable or sufficient IPR are not available, or are difficult to enforce, innovators and innovative enterprises may need to rely to a greater extent on other means to protect themselves from unfair competition, such as through secrecy, contractual agreements or technical means of preventing copying. Such means can be less effective in promoting the goals set out above.

How is intellectual property protected?

In general, intellectual property (IP) is protected by giving the creator of a work or an inventor exclusive rights to commercially exploit his creation or invention for a limited period of time. These rights can also be sold, licensed or otherwise disposed of by the rightsholder.

Intellectual property rights (IPR) are granted under the national laws of each country or region. In addition, various international agreements on intellectual property rights harmonize laws and procedures, or allow IPR to be registered at the same time in several countries. Different types of intellectual property – literary and artistic creations, inventions, brand names and designs, to name a few – are protected in different ways:

- Creations in the fields of literature and the arts, such as books, paintings, films, musical compositions and recordings, as well as software, are generally protected through *copyright* or so-called related rights;
- Technological inventions are typically protected by patents;
- Distinctive features such as words, symbols, smells, sounds, colours and shapes that distinguish one product or service from another, can be protected by *trademark* rights;
- The specific external appearance given to objects, such as furniture, car body parts, tableware
 or jewellery, may enjoy design protection;
- Geographical indications and trade secrets are also considered to be types of intellectual property and most countries provide some form of legal protection for them;
- Rules to prevent unfair competition in the commercial world also help protect trade secrets and other types of intellectual property;
- Plant varieties are protected mainly by a specific IP protection regime called *plant variety rights*, and may also be protected by patents or by a combination of the two systems; and
- Specific legal protection is provided in some countries for integrated circuits and databases.

The same product can also be simultaneously protected by more than one type of intellectual property right in different countries.

Copyright

Copyright exists to encourage the production of original artistic, literary and musical creations from books and paintings to movies, recordings and software. The copyright system rewards artistic expression by allowing the creator to benefit commercially from his work. In addition to granting economic rights, copyright also bestows "moral" rights which allow the creator to claim authorship and prevent mutilation or deformation of his work that might harm his reputation.

To qualify for copyright protection, the work has to be an original creation and expressed in a certain fixed form. Copyright is automatically vested in the author once the work is created, though a few countries maintain voluntary registration systems that provide additional benefits. It can then be

licensed or assigned, often to a publisher or a producer. Copyright protection gives an author exclusive rights of a certain duration, generally from the time of creation of the work until 50 or 70 years after the author's death or, for sound recordings, often 70 years or more after publication.

Copyright law allows the copyright holder to control certain uses of his work. These uses, which the author can authorize or prohibit, typically include reproducing, distributing, making available, renting, recording, communication to the public, broadcasting and translating or adapting the work. In some countries, the author does not have the right to prevent certain uses of his or her works but still has a right to be remunerated for such uses. In every country, exceptions exist that allow the public to make certain uses of works without either remunerating or obtaining the authorization of the author. An example of this could be the use of limited quotations for illustration or teaching. The protections afforded to the copyright holder, as well as limitations and exceptions provided under copyright law, are an essential part of copyright frameworks. By striking the right balance, together they facilitate the creation of artistic works as well as new means to distribute and enjoy artistic works.

Most countries provide similar protection for phonogram producers, performers and broadcasters. In some countries, performers, producers and broadcasters of copyrighted works are protected by copyright just like authors; in other countries, they are instead protected by so-called neighbouring or related rights. Copyright has become increasingly important with the development of digital technology and the Internet, where it is a major form of intellectual property protection for content distributed online, and where it faces difficult enforcement issues.

Several international agreements on copyright protection and related rights exist. These include the Berne Convention for the Protection of Literary and Artistic Works (1886), the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (1961), the Geneva Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms (1971), the WIPO Copyright Treaty (1996) and the WIPO Performances and Phonograms Treaty (1996) (both of which address the protection of authors' and music producers' and performers' rights in the digital world), and more recently the Marrakesh Treaty to Facilitate Access to Published Works for Persons who are Blind, Visually Impaired or otherwise Print Disabled. The World Trade Organization (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) (1994) is the first multilateral trade-related intellectual property agreement. It covers most types of intellectual property and includes copyright and related rights.

Patents

A "patent" is a governmental authorization which gives the inventor the right, for a specified period of time, to prevent others from using, making, selling, offering for sale or importing his invention without his authorization. In return, the inventor must disclose the details of his invention in a patent document that is made publicly available. In essence, patents represent a social contract between society as a whole and inventors.

An innovation that the inventor prefers to keep secret is known as know-how or a trade secret and protected under other laws.

In most countries, patent protection lasts for 20 years counted from the filing date and is issued by national or regional government patent offices, to which the inventor has to submit an application.

In order to be granted the patent, the invention must fulfil three conditions:

It must be new – it should never have been published or publicly used before;

- It should be capable of industrial application it must be something that can be industrially manufactured or used; and
- It must be "non-obvious" it should not be an invention that would have occurred to any skilled person in the relevant field.

Over the years, patent systems have been adopted by many countries because:

- they encourage the disclosure of information to the public, increasing the public's access to technical and scientific knowledge. Without the assurance of a patent, an individual or corporate inventor may choose to keep the details of an invention secret;
- they provide an incentive and reward for innovation and investment in R&D and future inventions;
- the limited duration of a patent encourages the rapid commercialization of inventions, so that the public receives a tangible benefit from the invention sooner rather than later;
- by encouraging the publication of details of inventions, patents help avoid duplication of research and stimulate further research, innovation and competition; and
- patents are perceived as a sound intellectual property title, granted in most territories after a rigorous examination process.

The patent system has been continuously developing during its entire existence, and this has contributed to its strength over time. To coordinate the patent systems of the countries and tackle the substantive and procedural issues in obtaining state and regional patents, several international agreements on patent protection exist. For substantive issues, the most important are the Paris Convention for the Protection of Industrial Property (1883) and the WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) (1994), while the main patent treaties for procedural issues are the Patent Cooperation Treaty (1970) and the Patent Law Treaty (2000). There are also some other regional agreements, such as the European Patent Convention (1973), Lusaka agreement (1976), Bangui Agreement (1977) and the Eurasian Patent Convention (1994). The European Patent Convention (1973) sets out rules for obtaining European Patents which, when granted, split up into national patents in the designated countries. A revised version of the Convention (EPC 2000) and Implementation Regulations came into force on 13 December 2007.

Designs

Design rights protect new and original visual aspects of a product or its packaging. Requirements for protection typically borrow concepts from both patent law (novelty) and copyright law (originality). The design eligible for protection must display aesthetic features, not be dictated solely by a technical function and must not be predated by a known overall identical or similar design. Designs can be expressed in two-dimensional (drawing) or three-dimensional (model) formats. Designs contribute significantly to the marketability of goods, adding commercial value to them and are crucial assets in several industries, for instance textiles, fashion, mobile consumer devices, computer software (interfaces), automobiles, furnishing and decoration.

The regime for design protection differs from one country to another and in most countries design protection is subject to registration.

Design protection is an area that has benefited lately from significant and promising harmonization at the levels of international filing as well as substantive applicable law. The Hague Agreement (1925) concerning the international filing of industrial designs, as amended by the WIPO Geneva Act (1999) allows centralized design application filing for protection in the various countries party to the Agreement (which includes the EU). The most recent Regulations came into effect on 1 April 2010. For procedural issues, the classification of goods is governed by the Locarno Agreement (1968). In 2012, more than 2,600 applications have been filed through the Hague System. A parallel popular road to filing in the EU is through OHIM in Alicante that operates the register of Community designs.

Regarding substantive law, harmonization has been achieved within the European Union with Regulation No 6/2002. This provides for a Community design right, effective in all 28 EU Member States, which gives protection for up to 25 years for registered designs and for a shorter term of three years for unregistered designs. In WIPO, discussions on a proposed Design Law Treaty are underway, with the objective of harmonizing administrative aspects of the entire filing procedure.

The owner of a protected design has the right to prevent unauthorized copying by third parties, and to prohibit the making, selling, importing or exporting products incorporating or applying the design. Depending on the countries, the owner may concurrently avail himself of the protection of copyright, trademark and patent law. The economic importance of designs in the modern economy has retained much more attention recently, highlighting the need for further harmonization, guidance on the scope of protection of designs and its enforcement.

Trademarks

Trademarks allow consumers and businesses to differentiate between goods and services coming from different sources and to select the ones whose reputation they trust.

For manufacturers or service providers who have invested the time, effort and money to build up a good brand image, trademarks are a way to prevent others from unfairly taking advantage of their reputation. This ensures fair competition in the marketplace and encourages companies to invest in the quality and reputation of their products or services.

Trademark protection can apply to brands, names, signs, symbols and even colours, smells, sounds and shapes. This means trademarks protect almost any distinctive feature attached to a product or service.

In most countries, registration of a trademark in a national or regional government trademark office is for the protection of specific goods or services. A trademark holder can prevent others from using its trademark or a similar mark for the same or similar goods or services, if doing so is likely to cause confusion in the minds of the public. In many countries, famous or well-known trademarks also enjoy protection against uses that disparage, dilute or take unfair advantage of the reputation of the famous mark.

Almost all businesses, large and small, rely on trademarks. Trademark protection is used more than any other form of intellectual property in both developing as well as developed economies. Trademarks serve to guarantee origin to local consumers, and readily searchable trademark registers allow businesses to avoid selecting new marks that could be confused with existing ones.

Several international agreements on trademark protection exist. The main ones, adopted by the largest number of countries, are the Paris Convention for the Protection of Industrial Property (1883)

and the TRIPS agreement (1994). The Trademark Law Treaty (1994) and the Singapore Treaty on the Law of Trademarks (2006) have a relatively limited number of contracting parties.

For procedural issues, the main treaties are the Madrid Agreement concerning the International Registration of Marks (1891) and its Protocol (1989), which uses French, English and Spanish as official languages, and the Nice Agreement concerning the International Classification of Goods and Services for the Purpose of Registration of Marks (1957).

There are also several regional arrangements that provide for protection in several countries through one single trademark registration. These include: the Community Trade Mark (CTM), which allows a trademark holder to obtain a single trademark registration covering all member countries of the European Union; registrations with the Benelux Office for Intellectual Property (BOIP) which cover Belgium, Luxembourg and the Netherlands; and trademarks filed through the African Intellectual Property Organization (OAPI) which cover all OAPI member (essentially French-speaking) countries. Changes to the CTM Regulation and the Directive are under discussion and are likely to be adopted in 2014.

Plant variety rights

A plant variety right (PVR) is a patent-like protection for plant varieties, which gives to the breeder the exclusive right to exploit the variety for up to 30 years.

A plant variety is eligible for protection if it is:

- new it must not have been exploited in the protected territory for more than one year or elsewhere for more than four (or six) years before the date of application;
- distinct it must be clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time of the filing of the application;
- uniform it must be sufficiently uniform in its relevant characteristics;
- stable its relevant characteristics must remain unchanged after repeated propagation; and
- designated by a suitable denomination.

The PVR does not protect the variety as such (as an invention is protected by a patent), but only certain embodiments of it. In the first instance, it is the propagating material that is covered by the exclusive right of the titleholder, so that he can control its production, reproduction, sales, import and export and related activities. In some countries, harvested material of the protected variety as well as products made directly from harvested material may also be subject to the rights.

A unique feature in the PVR system and one of its most important exceptions is the so-called "breeders' exemption", which allows breeders to use protected varieties in the development, and subsequent exploitation, of new varieties. The breeders' exemption fosters the improvement of varieties, given that a new variety cannot be developed without using existing material.

The only international agreement on Plant Variety Rights is the International Convention for the Protection of New Varieties of Plants of 1961 (revised in 1972, 1978 and 1991), which is governed by the Union for the Protection of New Varieties of Plants (UPOV). Among the 71 UPOV members, 51

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are bound by the 1991 Act, 19 by the 1978 Act and one is still bound by the 1961 Convention as amended by the 1972 Act. At present more than 95,000 PVR titles are in force in the territories of the UPOV members.

Article 27 (3) (b) of the TRIPS Agreement also refers to plant varieties: it obliges the members of the WTO to provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof.

Economic, social, political and technological developments have a fundamental impact on how intellectual property (IP) is created, exploited and used. Existing systems of intellectual property protection are constantly adapting to accommodate these changes, as they have since their inception. Businesses reliant on creating value from intellectual property assets must, to remain competitive, ensure that the means available to them to protect their intellectual property are still effective in this evolving environment.

This introduction describes the main forces changing the intellectual property landscape today and their possible impact on the creation and exploitation of intellectual property. Among these are:

- 1. Geographical developments;
- 2. New technological developments;
- 3. The interplay with societal and political issues; and
- 4. Changes in the ways businesses operate.

1. Geographical developments

- · · ·

Centres of technological and other innovation in different areas are now developing in different parts of the world and are no longer limited to the traditional innovation hubs in Europe, North America and Japan. The ten top-ranked countries in the 2013 Global Innovation Index include Hong Kong (China) and Singapore while the top 40 include Malaysia, China, the United Arab Emirates and Costa Rica. Gross expenditures on R&D in many top-spending developed and emerging nations have been on a continuously upward trend since 2010 with countries such as Indonesia, India, Malaysia and China leading with double digit growth in 2012-2013¹.

The **evolving geographical landscape of innovative activity** is partly reflected by worldwide trends in IPR filing activity. For the period 2007 to 2012, filing activity for patents, trademarks and industrial designs has steadily shifted from high-income to middle-income countries². Some of the more specific IPR indicators for the period between 2011-2012³, set out below, also confirm this tendency:

- Patent offices of China, New Zealand, Mexico, the US and the Russian Federation reported the largest growth in patent filing, with growth in resident filings driving the increase in China, the Russian Federation and the USPTO⁴.
- Growth in filings in China was the main contributor to a large increase in utility model filings worldwide but Turkey, the Czech Republic, Italy and Thailand also exhibited strong growth⁵;

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¹ The Global Innovation Index 2013 by Johnson Cornell University, INSEAD and WIPO

² Source: WIPO World Intellectual Property Indicators 2013

³ Source: WIPO World Intellectual Property Indicators 2013

⁴ China (+24%), New Zealand (+14.3%), Mexico (+9%), the US (+7.8%) and the Russian Federation (+6.8%)

Worldwide (+23.4%), China (+26.4%, Turkey (+15.5%, Czech Republic (+13.2%), Italy (+11.7%) and Thailand (+10.7%)

- The largest increase in trademark applications (calculated by the total number of classes specified) was in trademark offices in Turkey and China, mainly fuelled by filing activity by residents⁶.
- The Russian IP office recorded the fastest growth in the numbers of industrial designs contained in applications, followed by Turkey, while worldwide, Chinese residents were the biggest filers of industrial designs.⁷
- Offices in China, Ukraine and Brazil demonstrated the fastest growth of plant varieties in force⁸.
- In 2012, residents of China accounted for the largest numbers of applications filed throughout the world for patents, utility models, trademarks and industrial designs, and the relevant Chinese patent and trademark offices were also the largest recipients of filings for these four types of IP.

The increase in filings of different IPR worldwide gives rise to additional considerations for businesses; for instance, as utility models are considered prior art which can destroy novelty worldwide, the exponential increase in utility model registrations (e.g. in China) can pose challenges for businesses which seek to ensure that their inventions have not been anticipated.

Developments in communications and logistics are allowing **businesses**, even small ones, to operate and trade on an increasingly international scale. There is also an increasing tendency for businesses to collaborate with public and private partners when developing new technologies, products and services. Thanks to developments in information and communication technologies (ICT), many of these collaborations take place across borders, thus stimulating the exchange of knowledge and expertise around the world. This trend is supported by the development of electronic commerce which allows more companies to operate internationally,

These tendencies are resulting in more cross-border intellectual property transactions and may result in multi-jurisdictional intellectual property litigation becoming more common. Businesses are therefore confronted with issues relating to the applicable national law and jurisdiction with respect to intellectual property transactions. Enforcement of intellectual property rights in multiple jurisdictions is also a formidable challenge in view of the different systems of law and procedures and functioning of national courts. This is equally true for globally active service companies such as banks, and insurance and transportation companies.

The global nature of commerce and business operations has also added challenges for managing IPR, for instance, in deciding where to file for registered rights, and in ensuring freedom to operate in the various countries where a company is operating.

The development of innovative activity in various regions and increasing collaboration across borders are starting to make businesses in different countries more aware of the potential advantages of better leveraging and managing intangible assets as part of their business operations and strategies. In these countries, there is an increasing need from the local business communities for well-functioning IP systems that serve their needs as well as for expertise on how to manage IP assets⁹.

⁶ Turkey (+ 24.1%) and China (+16.5%)

⁷ Russia (+29.5%), Turkey (+12.4%),

⁸ China (+32.9%), Ukraine (+11.8%) and Brazil (+11%)

⁹ For example, see "Innovation in Brazil: an agenda to promote innovation" 2011 – Confederação Nacional da Indústria (CNI) – in which the Brazilian business community argues for a pragmatic intellectual property policy.

These factors underpin and continue to support the rationale for **working towards more consistent intellectual property norms internationally**. Harmonization through treaties dates from the Paris Convention (1883) through to the WTO TRIPS agreement – which linked intellectual property rights to the international trading system and its sanctions mechanism – and more recently the 1996 WIPO Internet Treaties. So-called soft law instruments, such as guidelines or recommendations, are also being used to define new norms which can potentially be made binding through integration into treaties, by adoption into national law or by reference in bilateral trade agreements.

2. New technological developments

The development and commercial application of new technologies are constantly generating new types of products, services and processes, many of which can be protected by IPR. Such new technologies can have a large impact on the way IP assets are created and used, as well as on how products and services based on IP assets are produced and distributed. This in turn has important consequences on how companies manage and protect IP rights, and control the production, distribution and use of their intellectual property.

Developments in information and communication technologies (ICT), improvements in transmission speeds and increasingly ubiquitous connectivity to the Internet through a wide range of devices have facilitated communication and the transmission and exchange of information. New technologies are also leading to the decentralization of distribution and production. For example, ICT has made it easier for new players and consumers to distribute virtual content and retail goods through Internet platforms and social media and other networks. The increasing accessibility of 3D printing to consumers will now also facilitate the production of goods, which might be based on IP-protected knowledge and designs.

While these new possibilities offer increased opportunities for businesses to disseminate their products, and services, they also pose challenges for them in controlling the unauthorized use of their IP assets, whether they be copyrighted works, patented inventions, protected designs, trademarks or trade secrets. The ubiquity of devices and appliances which can be used to access information on the Internet makes this challenge all the more formidable.

Advances in ICT have also enhanced the accessibility and popularity of "virtual worlds". These alternative digital universes for commercial and social networking over the Internet often emphasize goal-oriented game play. Traditional concepts of intellectual property infringement may be implicated, for example, in the situation where vendors in a virtual world offer items for sale and such vendors have no association with the real life brands they "represent" in a virtual reality.

Social networking and other web sites, increasingly used, typically allow user-generated content (UGC) to be uploaded, accessed and viewed. UGC may incorporate third-party content, in a way which may or may not infringe IPR, depending on the means of content incorporation and the application of relevant law. The rules regarding the responsibilities of the different actors in such situations vary in different jurisdictions. Cross-industry initiatives have been undertaken to determine processes acceptable to different stakeholders in this context¹⁰.

The increasing commercial application of **life science technologies**, such as biotechnology, leads not only to the development of new types of products and services, but also to new forms of distribution and diffusion of technology and new types of public-private partnerships for achieving societal goals. Business needs to be particularly mindful of the intellectual property policy challenges

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¹⁰ E.g. Principles of User Generated Content Services – www.ugcprinciples.com

presented by the growing convergence of biotechnology with information technologies and other new technologies in which information, new tools and new methods are critical to innovation.

A major focus in the field of **biotechnology** today is the development of sustainable alternative energy and fuel sources. In addition to providing renewable energy, many new biofuels can further benefit the planet by providing new avenues of waste management. Biofuel industries are expanding rapidly and globally, particularly in Europe, Asia and the Americas. Focus on the use of microorganisms in the development of biofuels has stimulated intense interest in intellectual property protection for these new fuel sources as well as increasing opposition to any requirement for early public availability of microorganism deposits.

Another major development in the field of biotechnology is the emergence of biosimilar drug products in Europe and the adoption of a pathway for approval of biosimilars in the United States. Although the concept for biosimilar drugs is much like generic chemical or small molecule drugs, it is much more difficult to ensure equivalence of a biologic product. For biologics, often the only patent protection that remains in force at the expiration of any market exclusivity period, are those that cover manufacturing processes or specific formulations. Thus, a drug company seeking to avoid these patents will have incentive to make changes in the manufacture or formulation of the biologic product. However, unlike generic small molecule drugs, even a small change in manufacturing conditions or the formulation of a biologic may have a significant impact on the activity and immunogenicity of the final product. It is possible that in many cases companies starting out to make a biosimilar product may end up with a new product that can either be patented or receive its own market exclusivity or both. In spite of the difficulties inherent in this technology, a number of biosimilar products have been approved in Europe and numerous biopharmaceutical companies have announced plans to enter the biosimilar market in the US.

Another pioneering field of technology is **nanotechnology**, which is essentially a catch-all phrase for various new technologies that focus on developing devices, systems, materials, biologics and other structures at the nano, or billionth of a meter, level. These fields bring together a multidisciplinary team of engineers, biologists, physicists and/or chemists to create new nano-materials for constructing miniature devices or systems of an electrical, material science or even biological "nature" with possible applications in healthcare, computer processing and other areas. One difficulty in this area is that some of the materials and systems that will be developed, while highly miniaturized, will provide functions that already exist in today's materials and systems. Thus the challenge to the patent system will be to provide for adequate and balanced protection in this new emerging field.

The emergence of other new technologies in the future will also have implications for intellectual property protection which may go beyond the issues being discussed today.

3. The interplay with societal and political issues

Long considered a technical issue, intellectual property policy is now firmly established in the political arena and is often held up to public scrutiny. Policy makers have to constantly strive to maintain the delicate balance necessary to satisfy the rights of the creator and the interests of users, so that the system benefits society as a whole.

The politicization of the intellectual property debate is due in part to the **increasing economic importance** of intellectual property. This has also made it an important issue in trade relations between states as shown by the inclusion of IP issues in international trade agreements, most notably the WTO TRIPS agreement, and more recent plurilateral and bilateral trade agreements. The opposition in some developing countries to proposals made by developed countries in several free trade agreements to strengthen the protection of intellectual property, within the context of a broader trade package, has intensified political debate on IP issues. A number of intellectual property related issues have also been included in the WTO Doha Development Agenda including geographical indications, the relationship between TRIPS and the Convention on Biological Diversity (CBD), and the transfer of technology to least-developed countries.

The **linkage between international trade and intellectual property** is also clearly exemplified by the use of the cross-retaliation mechanism under the WTO Dispute Settlement Understanding (DSU) in the area of intellectual property. Under this mechanism, if a WTO member does not comply with a WTO dispute settlement decision, the adverse party can retaliate by suspending concessions or obligations against that WTO member, usually in the same sector, but in exceptional circumstances, in another sector. Use of cross-retaliation by suspension of TRIPS concessions and obligations was granted for the first time to Ecuador (in the "banana case") against the European Communities, to Antigua and Barbuda against the US for violation of WTO/GATTS rules (cross-border gambling and betting services); and to Brazil against the US (in the "upland cotton dispute"). However, cross-retaliation has not yet effectively taken place in any of these cases.

The dynamics of international intergovernmental discussions on intellectual property are largely shaped by differences between the perspectives of exporters and importers of goods and services with high intellectual property content; while IP-exporting countries generally support higher IP protection, IP-importing countries prefer less stringent rules. These traditional divisions are, however, now being blurred because of the emergence of innovative activity and industries in a number of countries which are beginning to view IP as a potential tool for promoting national innovation and economic development.

A further factor is **the emergence of an increasing number of actors** taking a very active part in the debate on intellectual property related policy issues. These actors include consumer organizations, groups in academia and other civil society organizations not earlier engaged in IP issues. Such groups are in some cases able to galvanize public opinion very effectively against initiatives to harmonize or strengthen IP protection¹¹. Industries with different business models also express different, and sometimes conflicting, desiderata for the evolution of the IP system. The addition of such voices to the debate has increased awareness and interest from a broader group of stakeholders in debates around intellectual property and, consequently, has resulted in a more complex policymaking process in this area.

The **role of intellectual property protection in socially and culturally sensitive areas** such as healthcare, ethics, development, education, the protection of the environment, competition policy, privacy and consumer protection, and food security is widely debated in developed economies as well as in some developing countries. A large number of UN organizations in addition to WIPO are also taking up intellectual property in different respects, including the World Health Organization (WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Conference on Trade and Development (UNCTAD), the UN Human Rights Council, the US Economic and Social Council (ECOSOC), the Convention on Biological Diversity (CBD), and the UN Framework Convention on Climate Change (UNFCCC).

A core debate, exemplified in the WIPO Development Agenda agreed in 2007, is on the role of intellectual property in promoting development. While some countries view strong intellectual property protection as being an important factor for stimulating innovation, others (mainly developing countries) see this as an obstacle to development. The differences in views between countries as to how the

¹¹ For example, during negotiations on the Anti-Counterfeiting Trade Agreement.

intellectual property system should evolve have made it difficult for international agreement to be achieved in many areas of IP, for example in WIPO discussions on patents.

Some countries also feel that proprietary rights for providers should be defined over genetic resources, traditional knowledge and cultural expressions – which they consider to be valuable elements of their national heritage – to allow them to control their use and share benefits from their commercial exploitation. The long-standing, and as yet unresolved, discussions in WIPO on possible international instruments in this area attest to the difficulties in adapting IP concepts to this context.

This increasing politicization of intellectual property issues means that business – in addition to engaging in the deliberations of international organizations – must also focus on **communicating to the general public** effectively on intellectual property issues. In particular, business must explain how intellectual property works in practice to support the processes of innovation and creation. In political discussions, many doubts and objections, particularly with regard to sensitive areas, are caused by a lack of understanding as to how the intellectual property system functions as a positive tool for achieving economic growth and other societal benefits.

Business must explain that intellectual property protection not only provides incentives for investments in research and development, but also enhances transparency and the dissemination of knowledge. For example, without the assurance of a patent – which provides for the publication of the patented invention – inventors are less likely to share information on their inventions and more likely to keep them secret. Similarly, the establishment of protection for copyright works is intended to facilitate their broader dissemination, by providing incentives for creation and distribution. It must also be explained that a ban or restriction on patents will not help to prevent undesirable developments in new, sensitive technologies.

In political discussions, the benefits and value of intellectual property protection for small companies are sometimes questioned. Business must therefore explain the important and beneficial role that intellectual property rights play for SMEs, spin-offs and start-ups in the context of cooperation, collaboration, specialization and financing¹². The intellectual property system is a precondition for markets for technologies and innovations that are often developed by SMEs. SMEs are also often linked to universities and research institutions which are themselves also using IP to leverage their research and work with commercial partners.

Business must communicate better about these mechanisms and about the effects of intellectual property protection, and focus on encouraging education about the importance of intellectual property for society. This is essential to improve understanding of the role of intellectual property and to garner public support for intellectual property rights. Such support would also greatly alleviate enforcement problems made more acute by new technologies and globalization.

4. Changes in the ways businesses operate

The evolution of business practices and the environment in which companies operate may have an impact on the way companies protect and manage their IP. Some of these trends are outlined below.

Intellectual property has long been used by businesses to support the marketing of goods and services. However, there is **growing recognition that intellectual property is a valuable asset in itself that can bring in revenue** through licensing, improve a company's balance sheet, increase stock value, or be used as collateral for loans or other financing. The market for trading in IP is

¹² See ICC research paper "Enhancing Intellectual Property Management and Appropriation by Innovative SMEs" at www.iccwbo.org/Innovation-and-intellectual-property.

growing, both in size and in the number of players, which include various types of intermediaries and trading platforms. New business models proposing inventive solutions for IP creation, licensing, and searching have also been introduced.

This development makes **valuation of IP** even more relevant than it was before. A number of valuation techniques have been developed, but since the value of IP is context-based and may have various value dimensions at the same time, the development of international standardized techniques will be a challenge. Moreover, accounting rules may require effective methods for valuing IP in order to allow the business impact to be visualized.

Increasingly short product life cycles in many industries also influence the way companies protect their intellectual assets. The length of time and amount of investment required to obtain intellectual property rights, especially patents, can be substantial relative to the effective life of the product. Certain requirements, such as the need to mark products with relevant patent numbers, also become impracticable when products have short life cycles and use many different technologies subject to different patents, especially when these products are miniaturized.

A range of factors – including globalization, advances in ICT, growing technological complexity, and cross-industry convergence – has induced business and other innovative organizations to engage increasingly in **innovation collaborations**. "Open innovation" practices range from R&D partnerships and licensing to newer forms such as innovation challenges and crowdsourcing. The complexity of products, specialization and the reorganization of production in order to benefit from economies of scale and reduced costs are also leading to increasingly decentralized production, distribution and outsourcing. This increasing tendency to work with outside partners poses added challenges for companies in managing their knowledge assets and confidential information, especially when operations take place across borders. Effective IP protection and an active intellectual asset management strategy is of importance to all sizes of companies, universities and research institutes that seek to protect their intellectual assets when trading, sharing and collaborating with other entities on a local or global level.¹³

The **increasing interaction between different economic actors** also raises the question of how the interests of various parties can best be balanced. Areas of interaction in which this question is particularly pertinent include technological standards and the control of unauthorised uses of IPR protected material on the Internet.

In many industries, companies rely on standards to help enable interoperability of technologies, products and services through the development of technical specifications in formal or informal Standards Setting Organizations (SSOs). To balance the need for technology owners to obtain a return on R&D investment with the desire to facilitate broad implementation of the standard under licensing terms and conditions for the underlying intellectual property that are fair, reasonable and non-discriminatory, SSOs generally develop intellectual property policies that seek to balance the interests of all of their members, patent owners, equipment manufacturers, and service providers as well as customers.

In discussions on how to control unauthorised uses of IPR protected material on the Internet, there has also been much debate on how to balance the interests of the different players participating in the Internet environment, such as content providers and other IPR holders, intermediaries (e.g.Internet service providers, payment processors, advertisers and search engines), equipment manufacturers and stakeholders in the domain names system.

¹³ See ICC research paper "The Open Innovation Model" at www.iccwbo.org/Innovation-and-intellectual-property.

This move towards increased collaboration, increasing amounts of data flows, and the ease with which confidential business information can now be transferred or published – exacerbated by the ubiquity of Internet and mobile devices, miniaturization of hard disks and storage devices, and the blurring of divisions between personal and professional devices – have presented huge challenges for companies to control flows of information, including **confidential business information**. While physical, technological and procedural security measures remain essential in this area, the need for better legal tools have led to several initiatives to try to improve legal measures, such as the proposal for a trade secrets directive in the EU and studies by the OECD on this topic. Differences in legal requirements and rules for the protection of trade secrets or confidential business information in different jurisdictions pose challenges for companies operating across borders; for example, in some jurisdictions, data privacy rules limit the possibilities for evidence-gathering especially in cases of leakages through employees.

The importance of **data** collection to many industries also raises questions concerning the rights over such data, as well as data privacy, in the context of personal information. Although databases are monetized and traded, formal database protection does not exist in many jurisdictions beyond the EU.

As communication through the Internet has become essential for almost all businesses, **domain names** have become, in some cases, valuable assets which companies have to manage like other IP assets. While it is still too early to determine the impact of the introduction of new Internationalized Domain Names (IDNs) and new Generic Top Level Domains (gTLDs) on the value of domain names, they continue to be monetized and traded as well as used as commodities for speculative gain. Several of the principal IP-related issues in the domain name area originate from the registration of domain names that are identical or similar to trademarks for the purposes of using or trafficking in those domain names in bad faith; there are fears that these issues will be exacerbated by the opening up of the top level domain name space.

Many companies are placing more emphasis on **corporate social responsibility and sustainable development** as the social and environmental impact of business operations come under increasing public scrutiny. Implementation of CSR and sustainable development policies within companies may have an effect on how intellectual property is used and managed, in the same way that other company practices and operations may be impacted.

Another development which has affected the way businesses manage their IP is the rise of Non-Practising Entities (NPEs). This term is not to be taken literally to mean all organizations who do not supply the market with the products and services covered by the patents they own; for instance, universities and research institutes are not NPEs in the sense intended. In March 2011, the US Fair Trade Commission objected to the term on similar grounds and adopted the term "patent assertion entities" or "PAEs". In fact, NPEs/PAEs are businesses whose sole or primary activity is asserting patents acquired from others against the current activities of companies in the marketplace, claiming very large amounts of money. Because the NPEs/PAEs do not sell products and services themselves, they are essentially immune from retaliation. Some NPEs/PAEs make assertions of patent infringement that they might have difficulty substantiating in court, in the hope that a potential defendant may settle rather than defend himself in court at great expense in legal fees and management time (a particularly significant consideration in the US); such NPEs/PAEs are sometimes described, with pejorative intent, as "patent trolls". Over the past few years, the number of law suits by NPEs/PAEs has significantly increased. In response, a number of industrial companies participate in collective buying arrangements which basically seek to buy up patents that might otherwise be bought up by NPEs/PAEs and to license them to the collective's members.

This brief introduction indicates that the intellectual property landscape is evolving rapidly. An overview of the key current and emerging intellectual property issues that have – or will have – an impact on business can be found in the following "roadmap" which is intended to provide an evolving framework and guidelines for businesses and policy makers in this area.

Roadmap 2014

A. Creating value from intellectual property

I. MANAGING INTELLECTUAL PROPERTY ASSETS TO CREATE VALUE

BACKGROUND | The proper management of intellectual property (IP) assets is important for businesses to: capture the value of their ideas and investments; protect their interests when engaging in collaborations; ensure freedom to operate (FTO) in a given sector and market by avoiding infringement of third party intellectual property rights (IPR), thereby minimizing licensing costs and litigation; signal their value to investors, partners, competitors and customers; and, in some cases, provide a revenue stream.

However, despite increasing recognition of the importance of IP management in business, companies – especially SMEs and in countries with less experience of IP – need to better understand the IP system so as to optimise its net value to them.

CURRENT LANDSCAPE | Intellectual property law, like all commercial law, has to be linked with the strategic commercial objectives of each business and is extremely complex. Business leaders would naturally like to be able to view IP in some simplified manner that allows them to make competent decisions. However, this is not possible. The term "intellectual property" is itself deceptive. For the businessman to think that the phrase "intellectual property" implies any uniformity of the various rights covered by the phrase "intellectual property" is dangerous. Patents, trademarks, copyright, the law of confidential information (trade secrets, know-how) and other intellectual property law have differing public policy justifications and have widely divergent characteristics. Likewise, no business can have an IP policy or strategy that is uniform (unless the business is exclusively concerned with just one of these forms of protection for intellectual creation).

At the top level, businesses (once they have appreciated the above) may need to make decisions as follows:

- a) On their approach to patenting: The key issue here is that patenting is expensive and that, because of the novelty requirements for patenting, a decision on whether or not to file patent applications has to be made as soon as possible after the research and development (R&D) has been completed, and usually long before the prospects of commercial success of R&D can be accurately assessed. This means that a statistical approach has to be adopted and that some of the money spent on patenting will prove to be wasted;
- b) On their approach to branding and the associated brand protection through trademark law and otherwise: A key choice is between monolithic branding (one corporate brand, supplemented by descriptive names or codes) and branding primarily by individual product. For instance, Virgin and BMW adopt the first approach with "Virgin Money", etc. and "BMW 530i", etc.; while most manufacturers of alcoholic drinks and confectionery adopt the second approach with "Smirnoff", etc. (Diageo) and "KitKat", etc. (Nestlé);
- c) On their approach to sub-contracting work that will generate technology, artwork, software and data: Companies need to do this with the right IP terms in the contracts if they are to profit as

they deserve to. Companies may particularly fail to pay appropriate attention when the payment due under the contract is small;

- d) On their approach to collaboration to generate technology, artwork, software and data: The term "open innovation" often misleads businessmen to think that uncontrolled flow of know-how and non-patenting of inventions is a new norm;
- e) In some business sectors/territories, on the response to patent assertion entities; and
- f) On the extent to which (i) licensing can earn extra revenue without damaging the core business of making and selling products and services, and (ii) cross-licensing of patents is a means of achieving freedom to operate: Typically, (i) and (ii) will be relatively unimportant in the pharmaceuticals sector, (i) will be relatively important in the manufacture of products that are expensive or difficult to transport, and (ii) will be relatively important in the information and communications technology sector.

To achieve such policy and strategy, decision-makers in companies need to:

- understand the basics of IP law better than they usually do; and
- employ or consult professional legal advisers of high calibre who can engage with their particular business model and explain the appropriate legal options.

FUTURE PERSPECTIVES | As economies around the world try to move up the economic value chain by producing value-added products and services, business communities in some of these countries are beginning to recognize the role of intellectual property in capturing this added value.

Governments in some countries have recognized the importance of IP for their national industries and economies and have supported the establishment of programmes to raise awareness of the role of IP and help companies better manage their intellectual assets. Many of these programmes have however, been overly focused on registration of rights and have not sufficiently linked IP to business strategies or addressed IP management¹⁴ in a holistic way.

Business membership organizations, such as chambers of commerce, can help raise awareness among their member companies of the role IP can play in supporting their commercial aims and provide services to help companies manage their IP. There are also an increasing number of commercial services to train businesses in managing their IP assets, a sign of the growing interest by companies in IP management.

The trading and valuation of IP (see section A, III, Valuation and monetization of IP assets) are growing sectors which demonstrate the increasing recognition of the potential value of IP in its own right.

ICC CONTRIBUTIONS | The first two papers in ICC's Innovation and IP research series discussed IP management in innovative SMEs and in an open innovation model (see www.iccwbo.org/Innovation-and-intellectual-property). The joint ICC – WIPO handbook "Making IP Work for Business" gives guidance on how chambers of commerce and business associations can set up IP services for business¹⁵.

¹⁴ "Benchmarking National and Regional Support Services for SMEs in the Field of Intellectual and Industrial Property", Alfred Radauer, Jürgen Streicher and Fritz Ohler, 2007

¹⁵ www.iccwbo.org/advocacy-codes-and-rules/areas-of-work/intellectual-property/ip-a-positive-force-for-society/

II. LICENSING

1. General issues

BACKGROUND | As intellectual property rights (IPR) continue to grow as a portion of a business's assets around the world, business deals involving the licensing of such rights (whether as a licensor or licensee) are also becoming more common. In some industries, such as entertainment and media, they are the core of the business activity and commerce. Despite its growth, however, IPR licensing is fraught with perils that may not be obvious to transactional attorneys, especially where the licensing deals may involve IPR in multiple jurisdictions or different IPR. Different jurisdictions have different laws that must be taken into consideration for each individual licence, and different types of IPR involve different laws that can also affect the terms of any licence under IPR.

CURRENT LANDSCAPE | As a general matter, principles of contract law should apply to IPR licence agreements, including country-specific laws such as the Uniform Commercial Code for IPR licences governed under the laws of the United States, as well as international laws such as the United Nations Convention on Contracts for the International Sale of Goods (CISG) for IPR licences between businesses in signatory countries. In addition, many IPR-specific international laws, rules and regulations may apply, often indirectly or through national implementation, such as rules promulgated by WIPO, the Paris Convention, NAFTA, GATT and TRIPS. However, how those laws, rules and regulations apply may vary from jurisdiction to jurisdiction and could depend on whether the licence contract is to be implemented in a common law jurisdiction or civil law jurisdiction. Regardless of how individual laws are applied, if at all, the following are some considerations that any party or potential party to an IPR licence may face and should carefully evaluate before entering into a final licence agreement.

a) General considerations

Identification of the parties: One seemingly obvious, but critically important, consideration for any IPR licence is the identification of the parties to the agreement, especially where one party is an entity with a more complex corporate structure. Due diligence is critical to settle issues such as who owns the relevant IPR, which entities will exercise the rights, what parties have registered relevant IPR, and whether third parties (affiliated or not) have any rights that can affect the licence terms. Resolution of such issues up front ensures that the parties are able to grant the IPR as intended, without interference and unintended consequences.

Governing law: Most jurisdictions offer some leeway for choice-of-law provisions in allowing the parties to an IPR licence to select which jurisdiction's laws should govern the agreement and the parties' obligations under the agreement. Nevertheless, parties must still be aware of any laws of the applicable jurisdiction that are mandatory and cannot be waived or circumvented by contract, such as local antitrust and unfair competition laws, as well as tax policies. Furthermore, the parties must confirm that the intended IPR is actually protectable within the relevant jurisdiction and find out what the rules are for registration or perfection of the IPR.

Scope of rights: One of the key business terms of any IPR licence is the extent to which the licensee may use the IPR it is licensing. The parties must determine whether a licensee is entitled to use the full field of the invention or the entire category of goods and services denominated by a trademark, or only some subset of those rights. Will there be any territorial restrictions or rights to sub-license? Where the licensor intends to place some limits on the IPR being licensed, careful drafting of the grant of a licence is critical, especially because many restrictions raise antitrust and other anti-competition concerns in many jurisdictions. As a general matter, IPR licence agreements between competitors are

more heavily scrutinized that those between non-competitors, so careful descriptions of each of the parties' fields of operation and expertise may help any licence agreement withstand such scrutiny.

Representations and warranties: The terms of an IPR licence agreement should include specific representations and warranties, including specific representations and warranties directed to the licensed IPR (i.e. ownership, full scope of rights, etc.), though such terms are no substitute for thorough due diligence before the agreement is executed. Related to such representations, the parties should negotiate any indemnification provisions and limitations of liability, as well as the duties and obligations to enforce the IPR and comply with any governmental regulations or registration requirements. The key goal in mind should be risk allocation at the outset rather than waiting for a dispute to arise.

Registration of the licence agreement: Different jurisdictions have different rules about whether an IPR licence agreement itself – separate from the actual IPR – must be registered, typically depending on the type of IPR at issue. There may be benefits to registration, even if there is no legal requirement. Thus, the parties should consider whether the licence agreement should be registered, and who bears the responsibility for ensuring such registration.

Term and termination: The parties should give significant consideration to the length of an IPR licence agreement, and how the parties can terminate the agreement. Termination by either party, other than by expiration of the agreement or pursuant to defined terms in the agreement, can be complicated. Do the parties wish to allow for termination at will, or only termination for cause? What will their respective obligations be after termination, including handling of confidential information and any sell-off periods? Local laws may also require specific notice periods, but such notice should be considered by the parties in any event. Negotiating these rights and obligations up front can eliminate, or at least reduce, disputes that frequently arise upon termination of a licensing agreement.

b) Patent-specific considerations

Scope of grant: In addition to the field of use and territorial scope issues mentioned above, parties to a patent licence agreement may wish to further divide the scope of the grant into the various rights granted under the patent laws of the relevant jurisdiction. For example, the US patent laws, like many other jurisdictions, grant patent owners the exclusive right to make, use and sell the patented invention. A patent licensor may wish to grant one licensee only the exclusive right to make or manufacture the patented invention, while granting another licensee the exclusive right to distribute or sell the invention further down the stream of commerce, such as to retailers or end-users.

Cross-licensing: With some patented inventions, opportunities may exist for cross-licensing among different aspects of a broader field of that invention, where each party grants a patent licence to the other party, effectively allowing both parties to combine resources to exploit the full field of the patented technology. Cross-licensing arrangements may also relate to the creation of patent pools where multiple patent owners pool together their related patents covering a certain field for licensing to one another and to others who wish to participate. The parties, however, must be cautious about whether cross-licences are exclusive or non-exclusive. Exclusive cross-licences raise a greater risk of antitrust or other anti-competitive scrutiny from government authorities or even challenges by other potential competitors excluded from the cross-licensing arrangement. Indeed, in some jurisdictions, exclusive cross-licensing by competitors is prohibited.

Tying: Patent owners / licensors often attempt to "tie" the licence grant for a patented invention to use of tangential or related items – though not covered by the patent – that also inure to the benefit of the licensor. Licensors also may try to "tie" negative obligations, namely requirements to refrain from making or selling items related to the invention. As with patent pools, tying is not necessarily anti-

competitive or impermissible, but such arrangements often invite additional scrutiny and depend in large part upon the parties' relative market power. In some jurisdictions, negative tying is prohibited outright, regardless of market power.

Compulsory licences: In some countries, a patent owner and potential licensor face the possibility of a compulsory licence being granted to the invention by a governmental authority, against the will of the owner. As a general matter, such compulsory licences will not be permitted for or granted to direct competitors. Nevertheless, a patent owner considering enforcement of its patents may wish to consider the risk of a compulsory licence when negotiating or litigating because a "voluntary" licence still gives the parties greater control over an ongoing relationship than a compulsory licence.

c) Trademark-specific considerations

Writing requirements: Different jurisdictions have different requirements about whether a trademark licence agreement must be in writing. For example, US law does not require any written agreement; whereas certain European countries require licence agreements covering registered marks to be in writing and signed by the licensor (not necessarily by the licensee), though licences to unregistered trademarks need not be written or signed by anyone.

Quality control: Although many jurisdictions have no express requirements regarding quality control provisions in a trademark licence agreement, such licence agreements in the US must include quality control rights to the licensor for the licence grant to be valid. Otherwise, the licensor runs a risk of losing rights to the trademark itself – not just the licence agreement – as a "naked" licence. In such a situation, both licensee and licensor lose their rights to prevent unauthorized use of the trademark. Quality control provisions frequently require a balancing the licensor's genuine need for control of its trademark with a licensee's desire to avoid overly intrusive micro-management by the owner. Moreover, the parties must give consideration to antitrust and anti-competition laws, as well as the potential for liability arising from defective products under the "control" of both parties.

Ownership and good will: In countries such as the US and many others, a trademark symbolizes the goodwill developed and maintained by the trademark owner, not the licensee. Nevertheless, the parties to a trademark licence should specify in the agreement who retains ownership of the trademark and to whom the benefit of the licensed use inures, especially if the licensed use of the trademark potentially expands the scope of goods or services expressly covered by the trademark's prior use.

Policing and enforcement: Because goodwill and ownership generally inure to the benefit of the trademark owner (licensor), enforcement and policing obligations also fall to the licensor in most situations. The parties, however, may wish to reallocate those obligations and the cost thereof, especially in the case of an exclusive licence. In either case, negotiating for mandatory assistance by the other party is also critical, and often necessary to bringing any litigation or other action against a third party.

Use restrictions: Unlike patent licences, trademark licences generally are less scrutinized as anticompetitive for restricting a licensee's use of the trademark to certain goods or services, especially in jurisdictions where quality control is required. Restrictions are often necessary, in fact, to prevent a licensee from misusing, or expanding the use of, a trademark in such a way as to create confusion, dilute the licensed trademark or otherwise render the mark unprotectable. Thus, such restrictions are in the "public interest" and therefore more acceptable from a competitive standpoint.

Termination: Termination of trademark licence agreements can be more complex than other IPR licence agreements. Even the most carefully drafted termination provisions may be overridden by courts or governmental authorities, particularly in bankruptcy or insolvency contexts, thereby depriving

one of the parties of its rights under the licence. Thus, parties to a trademark licence agreement should anticipate events and consider additional protections.

d) Copyright-specific considerations

Writing requirement: As with patent and trademark licences, copyright licences have mixed requirements relating to whether the licence agreement must be in writing. Most jurisdictions require exclusive copyright licences to be in writing, typically signed by at least the licensor. Non-exclusive licences, on the other hand, typically need not be in writing and many jurisdictions recognize open and Creative Commons style licences. Few jurisdictions, if any, require copyright licences to be filed or registered with the relevant copyright office. The formalities involved also depend on whether the licence in question is a commercial contract or a unilateral contract as, for example, in the case of many Creative Commons licences.

Ownership: As a general matter, the author or artist of a copyrighted work will retain ownership rights in the work, unless special circumstances – such as employment or permissible assignment – exist to convey title to another party. Parties should pay special attention to local laws and licence provisions concerning "works made for hire," merchandising and the creation of other derivative works by a licensee because different jurisdictions follow different rules. The parties generally can alter default ownership rules provided they carefully consider and draft the licence language, though most jurisdictions outside the United States recognize "moral rights" that afford certain protections to authors and creators and cannot be waived. As a general matter, however, the implications of joint ownership of a copyright need to be considered since some jurisdictions require accounting and sharing of profits and/or consent of the other joint owners to assign or enforce the jointly owned copyright.

Royalty sharing: In some jurisdictions, the "owner" of the copyright is entitled to receive any and all royalties derived from a copyright licence or sales of copyrighted works, regardless of the contributing authors. In other jurisdictions, there is a presumption that royalties will be shared among all authors, even if there is a single owner of the copyright – unless specified otherwise. Similarly, many jurisdictions recognize a form of the "first sale doctrine" in which a sale of a physical copy of a copyrighted work (an authorized copy) eliminates any further ability to control distribution or subsequent sales of that copy of the authorized work.

FUTURE PERSPECTIVES | As noted above, many of the issues flagged above differ from jurisdiction to jurisdiction, and also vary enormously depending on the type of IP asset, industry and type of business or other parties concerned. Importantly, local laws and regulations are always changing, though at this time there do not appear to be many significant legislative changes on the horizon. Nevertheless, just as the US recently passed the America Invents Act that brought substantial changes to US patent law, other jurisdictions also make changes from time to time to their own rules of practice with respect to IPR, registration requirements and ownership obligations. Perhaps even more importantly, changes to other areas of the law, such as antitrust law and other competition regulations, may impact IPR licensing in ways that outside practitioners may not appreciate. Thus, consultation with local counsel about an international IPR licensing agreement is often critical to a successful relationship. Indeed, periodic review of previously agreed IPR licences may prove valuable to ensure compliance with current (and future) laws and regulations.

ICC CONTRIBUTIONS | ICC is developing a research paper on channels for technology diffusion and dissemination, including licensing, as part of its research series on the role of intellectual property in innovation (see www.iccwbo.org/Innovation-and-intellectual-property). ICC has also developed an information booklet on intellectual property licensing as well as several model contracts relating to licensing including on technology transfer, trademark licensing and franchising (see www.iccwbo.org/products-and-services/store).

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rights collectively.

2. Specific situations

2.1 Collective administration and licensing of copyrights

BACKGROUND | Collective management of copyright can benefit rightsholders, users, inter alia content and service providers, and consumers by facilitating the efficient licensing of copyrighted works with minimal transaction costs, thus enabling new business models to use and distribute copyrighted works across platforms. In suitable cases, it is advantageous to both rightsholders and users to license copyrighted works collectively as long as the collective administration of copyrights takes place within a framework that provides transparency and accounts for the interests of all parties involved. Key to rightsholders is maintaining control over when and how to license their

The national nature of copyright requires that international business model licences work in each relevant territory. In appropriate cases, collective management can facilitate such licensing in each territory, and cooperation between collectives through reciprocal agreements can further facilitate international licensing.

CURRENT LANDSCAPE | New media and technology continue to create novel and innovative ways for rightsholders to distribute and exploit their works, in particular in online and mobile services, thus creating new opportunities for licensing. Rightsholders are seeking to drive, and users seek, efficient and comprehensive multi-territorial licensing of uses that enables the delivery of copyrighted works to consumers seamlessly and at proper price points, to the benefit of rightsholders, users and consumers.

Collectives are licensing within such new business models and cooperating internationally to harmonize databases and develop reciprocal arrangements to facilitate transnational licensing of copyrighted works.

Governments are seeking to foster transnational licensing and transparency in collectives, while recognizing the territorial nature of copyright and the prerogative of rightsholders to determine when it is appropriate to exploit exclusive rights directly or collectively.

FUTURE PERSPECTIVES | Innovative online and mobile business models made possible by evolving technology will continue to foster new opportunities for licensing copyright, which in appropriate instances can be done most efficiently on a collective basis. The international nature of many such business models continues to increase the importance of transnational cooperation between collectives and multi-territorial licensing wherever possible. An appropriate supervision of the legal framework should be ensured.

2.2 Patents and standards

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BACKGROUND | In many industries, companies rely on standards to help enable interoperability of technologies, products and services through the development of technical specifications in formal or informal Standards Setting Organizations (SSOs). Further, to enable the incorporation of the most innovative and efficient technology in the standard under development, members of the SSO are encouraged to contribute their best technologies for consideration by the SSO for inclusion in the standard. It is generally recognized that to achieve the desired objective, patent owners must be able to obtain a return on their R&D investment that is at least sufficient to maintain investment incentives, taking failed projects into account. However, that must also be balanced by the need to facilitate broad implementation of the standard under licensing terms and conditions for the underlying intellectual

property that are fair, reasonable and non-discriminatory. Accordingly, SSOs generally develop intellectual property policies that seek to balance the interests of all of their members, patent owners, equipment manufacturers and service providers, as well as customers. Competition law has been used by the European Commission to address concerns relating to the exercise of IPR in the standards-setting context.

CURRENT LANDSCAPE | To ensure a wide availability of standardized technologies while maintaining incentives for innovation, several approaches are commonly pursued. Most standards bodies seek the early disclosure of the existence of potentially essential patents and they request that the patent holders declare their willingness to offer licences on (fair), reasonable and non-discriminatory terms and conditions ((F)RAND). Potential implementers and patent holders can negotiate detailed licensing terms which would often be customized to address the specific needs of both parties.

This is in line with the European Commission's 2011 Guidelines on Horizontal Cooperation Agreements which are designed to guide SSOs as to whether their activities are compatible with EU competition rules. The Guidelines set out a number of criteria for standard-setting patent policies that, if included, will mean that the particular standard-setting agreement benefits from an EU competition law safe harbour. If the rules of the particular SSO do not fulfil the safe harbour criteria, these SSO rules should be assessed on a case-by-case basis.¹⁶

The Guidelines accept that the FRAND commitment deals with concerns that, once the industry has been locked into a standard, a holder of patents essential to the standard may be able to seek unreasonable licensing terms. This scenario is called "holdup" and in certain circumstances it could constitute a breach of EU competition law. The Guidelines are clear that such issues should be dealt with on a case-by-case basis. Historically, holdup has rarely occurred, partly because the SSOs have successfully implemented their FRAND intellectual property policies, given that participants are interested in the standard's success and widespread implementation and so are motivated to act reasonably. Antitrust intervention has therefore been extremely rare in this area with the exception of the European Commission's long running case against Rambus, a hold-up case where the existence of essential IPR were concealed. However, SSO policies do not guarantee absence of all possible IPR issues, in part because the policy does not cover non-participants in the process. Hence, particular disputes have been submitted to courts to adjudicate the contractual (F)RAND licence relationship between the parties or the validity, infringement or essentiality of the patents in suit. Any assessment of related conduct must be made based on the specific facts and circumstances.

The European Commission has recently commissioned a study to collect quantitative and qualitative data on IPR-based standardization, with a focus on identifying barriers for efficient licensing of SEPs and on possible solutions to these barriers¹⁷.

FUTURE PERSPECTIVES | Industry participants have recently been discussing various topics relating to the patent policies of some SSOs in the ICT sector. The topics of discussion include the transfer of (F)RAND commitments with transfer of the underlying essential IPR, the availability of injunctive relief for essential patents, the meaning of (F)RAND and the condition of reciprocity that may be attached to a (F)RAND commitment. Many of these topics are highly controversial as they directly impact the commercial positions of patent holders and implementers of standards-compliant products and services.

ICC CONTRIBUTIONS | In the context of discussions in the WIPO Standing Committee on Patents, ICC has submitted that neither the international patent system nor its national implementation requires

¹⁶ See eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:011:0001:0072:EN:PDF.

¹⁷ "Patents and Standards: A modern framework for IPR-based standardization" 2014 by the ECSIP consortium for the European Commission – 25 May 2014

changes to address concerns about patents and standards. ICC has also urged governments not to pursue proposals to exclude subject matter from patent protection or to provide broad exceptions and limitations to the enforcement of patent rights to address concerns about patents and standards. The scope of the exclusive patent right is already carefully designed under national patent laws to strike a balance between the legitimate interests of IP rightsholders and third parties. Also, as businesses and SSOs are already in discussions to design a balanced relationship for the benefit of all stakeholders, amending the laws on patents to establish a specific regime for (F)RAND licensing terms would likely be a premature and ill-suited solution. ICC has also submitted comments on commitments offered to the European Commission by Samsung Electronics on the use of standard essential patents (SEP).

III. VALUATION AND MONETIZATION OF INTELLECTUAL PROPERTY ASSETS

BACKGROUND | Intellectual property rights (IPR) are increasingly recognized as valuable assets and often play a greater role in business strategy and overall corporate value than previously. Businesses assess the value of their IPR for many purposes, for example, to obtain financing, to make informed investment and marketing decisions, to exploit IPR through licensing, sale, and other means of trading (e.g. in the form of securities) as well as to fulfil company reporting requirements and assessment for taxation.

CURRENT LANDSCAPE | Different methods are applied for valuing IPR over and above industry practice and existing negotiation of bilateral agreements: these include ratings or rankings, discounted cash flow, rules of thumb, real options and Monte Carlo analysis, or auctions. Professionals specializing in IPR valuation, especially of brands and patents, use a variety of valuation methodologies. In some industries, valuation may be provided by licensing agreements on which the asset production is often conditioned or to which it is closely linked; for example, in entertainment and media industries. New international accounting standards may lead to brands being recognized in balance sheets in more countries and therefore, other financial uses of IPR. Due to the unique nature of IPR, the most suitable method for valuation is typically selected on a case-by-case basis depending on the type of IP asset and industry; a combination of methods is sometimes used in an effort to show a fair range of values for a particular IPR asset. Therefore, an approach which does not rely on a single universal method for valuation is needed to identify and quantify the economic benefits that IPR are likely to generate, reflect return on investment (e.g., the risk, cost of capital or failed projects) and ultimately determine the likely value generation from those economic benefits.

Market-based valuation between a willing buyer and a willing seller is the essence of licensing in market economies. General proxies for market-based approaches to valuation, which are relevant in some industries, include: objective ratings models offered in the US, Europe and Japan; live multi-lot IPR auctions; stock equity indexes and Exchange Traded Funds based on the value of corporate IPR (NYSE: OTP and NYSE: OTR); and an IP Exchange in Chicago (IPXI) providing unit patent licence rights (ULRs) that can be bought for the purpose of use and/or investment (the rights are consumed when a purchaser manufactures or sells a corresponding number of products incorporating the patented technology, or can be held as an investment to be traded on the exchange at a later time with the intention of making a profit from a possible increase in value of the rights). A spectrum of IPR-related financial products enables investor and company participation in IPR.

Accounting rules relating to cost can cause assets developed internally to appear to be worth "less" than their real market value or potential return on investment, which in turn lowers the company's market value. This does not seem to be a major problem, as most countries allow the asset to be revalued and marked-to-market in subsequent years. However, in some countries revaluation is subject to restrictions and the European Commission is assessing how companies can better value

intangible assets in accounting terms and increase the opportunities to get better value out of IPR and leverage financing.

An increasing number of governments have established programmes to encourage their enterprises to exploit their IPR. The valuation of IPR is important for enterprises in this context. Government bodies in several countries provide services to help companies to raise funds based on IPR.

Intergovernmental organizations such as WIPO, the OECD and the UN Economic Commission for Europe organize seminars and compile resources on this issue. UNCITRAL has included IP assets in the scope of its Legislative Guide on Secured Transactions. This Guide makes recommendations as to how country laws can be harmonized internationally to cut across legal restrictions on the availability of low-cost finance and credit.

Patent monetization continues to thrive and is being promoted by, for example, the European Commission, notably as it relates to dormant IP assets of SMEs. On the other hand, there is an increase in activities of patent assertion entities which acquire, license and enforce patent rights, as well as of patent agglomeration entities which acquire patent rights and license them to their members. The interest and value in monetizing patents has seen a dramatic increase in US patent litigation (significantly related to software patents) filed by patent assertion entities (from 29% in 2010 to 60% in 2012 of the 4000 patent lawsuits filed).

The monetization activities of operating companies continue to grow as the perception of value to be obtained from idle IPR increases, the stigma of asserting that value decreases and the need to obtain patents to fill portfolio gaps for cross-licensing and counterclaim assertion grows. From recent activity in the patent marketplace it can be seen that the value of a particular patent can be affected by a variety of contextual factors ranging from the value of the underlying technology to the value that the patent adds to the existing portfolio of companies in an industry.

In the future, the amount of royalties and damages awards to be obtained from monetizing patents may be more limited due to increased scrutiny of valuation. Courts have recently been giving increasing attention to evaluating whether methods and evidence to be used for valuing patents is appropriate, and have extensively commented and increasingly scrutinized the analyses of patent damages in litigation provided by valuation expert reports.

The valuation of patents has also been affected by the increased difficulty of obtaining injunctions for patent infringement generally and in particular for standard essential patents subject to FRAND commitments. Generally, holders of standard essential patents (SEPs) make commitments to offer to grant licences on terms that are fair, reasonable and non-discriminatory (FRAND). A FRAND commitment places reasonable limits on the valuation of SEP portfolios but does not foreclose the need to determine valuation based upon factors such as validity, enforceability, scope of IPR, potential revenue from infringement by others, potential value of the technology in the marketplace, importance of the technology to the relevant standard, features and functionality and cost reductions that are dependent upon the technology, and potential liability from infringing the IPR of others. Recent court decisions involving the assertion of standard essential patents (SEPs) in the mobile phone patent wars throughout the world have further defined general principles – applied according to the specificities of each case – with respect to royalties available under requirements by standard setting organizations to license such patents on fair, reasonable and non-discriminatory terms (FRAND).

The effects of patent monetization and whether further legislative, judicial or regulatory action is needed continues to be a subject of study and debate, given that the issue remains ill-defined.

FUTURE PERSPECTIVES | Several initiatives have been undertaken to standardize valuation mechanisms.

Patents: In 2007, the German Institute for Standardization, DIN, published PAS 1070 "General Principles of Proper Patent Valuation" (SAB) to assess the quality of valuation reports and expert appraisals. DIN initiated an international standardization project on patent valuation at the International Organization for Standardization (ISO).

Trademarks: ISO issued a standard on trademarks, as ISO 10668:2010. The standard considers valuation approaches and many of the issues discussed above, and may be a good starting point for brand valuation. Brand value is recognized in the WIPO Joint Recommendation on Provisions on the Protection of Well-Known Marks as a criterion for determining whether a mark is well-known and therefore subject to special protection. The recommendation requires a solid and transparent methodology to give reliable information to trademark authorities, ISO 10668:2010 could well be a backbone of such a methodology.

Threshold of standardization and challenges in valuation: In conducting due diligence studies on IPR, businesses and the financial community need to recognize that the value of IPR cannot be determined without proper legal analysis, considering issues such as validity, enforceability, scope of IPR, potential revenue from infringement by others and potential liability from infringing the IPR of others. Such studies provide more reliable information about the financial value of the IPR, as well as information useful in setting business direction and strategy. Other automatic techniques such as "citation analysis" provide, at best, a rough guide to IPR value, and may be quite misleading. In valuing IPR, it is also important to consider the scope and objective of the valuation. Valuing a single patent is different from valuing a patent portfolio covering certain technology or the whole patent portfolio of an enterprise. In the case of technology transfer, particularly for early stage technologies, the main purpose of a valuation is strategic, rather than formal.

ICC CONTRIBUTIONS | Concerns have successfully been raised by business and IP organizations, including ICC, that some of the provisions concerning IP assets in the UN Commission on International Trade Related Laws (UNCITRAL) draft Legislative Guide on Secured Transactions might have negative unintended consequences on IP licensing practices and trade. As a result, UNCITRAL adopted an IP Annex to the Guide to clarify certain areas of the Guide in its application to IP.

B. Obtaining intellectual property assets

I. PATENTS

1. Patent office cooperation and substantive patent law harmonization

BACKGROUND | As business, trade and the impact of technology have become increasingly global, awareness of the value of intellectual assets such as patents has grown. This has led to a steady increase since the mid-1990s in the number of patent applications filed worldwide. As a result, the backlogs of pending patent applications in the major patent offices have been increasing. The problems this development brings for all parties concerned underline the need for facilitated work sharing between patent offices. In this context, work-sharing means that patent offices share information about search strategies, search results and examination results for applications directed to the same invention, and use that information in connection with search and examination work done on such applications. Patent offices engaged in such work-sharing will retain the ultimate responsibility of deciding for themselves whether a patent should be granted or not.

The five major patent offices in the world, SIPO (China), USPTO (United States), JPO (Japan), KIPO (Korea) and EPO (European Patent Office), collectively "IP5", cooperate for work-sharing purposes in a number of areas in the context of patent search and examination.

Another development in work-sharing between patent offices is what is known as Patent Prosecution Highways (PPHs). The first PPH was launched as a pilot program between the US Patent and Trademark Office (USPTO) and the Japan Patent Office (JPO) in 2006.

The Patent Cooperation Treaty (PCT), a WIPO treaty dating back to 1970, was designed to address many of the problems that arise with international backlogs of patent applications by providing a single high-quality search and examination in the international phase. The PCT system has been a great success, with 148 contracting states by 16 March 2014. By a single application, patent protection can be applied for in all PCT countries, resulting in postponement of decision and costs for validating the application in the desired countries or regions. The WIPO PCT Working Group has the task of improving the PCT system.

At the same time, work on patent law harmonization at the World Intellectual Property Organization (WIPO), has been effectively stalled since negotiations on the then named Substantive Patent Law Treaty (SPLT) broke down in 2006. After the WIPO Standing Committee on the Law of Patents (SCP), resumed work in 2008, a number of topics have been discussed and different studies undertaken. However, the selection of topics to study has turned out to be difficult because of political differences between country groupings, and harmonization of patent law is outside the scope of these discussions.

CURRENT LANDSCAPE | The increased awareness of the value of intellectual capital such as patents has contributed to record levels in terms of numbers of patent applications filed. In 2011, the total number of patent applications filed worldwide exceeded two million for the first time, compared with about one and a half million in 2003. The main contributor countries for this growth were China, the United States and Korea, with the Chinese patent office rising to become the largest patent office in the world in 2011 in terms of patent applications filed. This development has resulted in increased pressure on patent offices with regard to their backlogs.

In parallel, the topic of patent quality is increasingly discussed, on the national as well as on the international level, such as in the context of IP5.

The IP5 cooperation continues and deepens. Ten joint foundation projects have been ongoing since 2008 to harmonize the search and examination environment for patent searches and examination and to facilitate work sharing among the five offices. The vehicle for work-sharing is the PCT. The development of a new patent classification system, common to the IP5 offices, is among the foundation projects. The IP5 also stresses the need to harmonize substantive and procedural patent law.

The so-called Tegernsee Group, composed of heads of offices and experts from the patent offices of Denmark, France, Germany, the United Kingdom, Japan, the United States and the European Patent Office, have been meeting since 2011, focusing on four main issues identified as key to harmonization: the grace period; 18-month publication; the treatment of conflicting applications; and prior user rights. In 2012, studies on these four issues were presented. Further developments will be discussed in the course of 2014 after analysis of the outcomes (published in July 2013) of broad stakeholder consultation in each region based on these four studies.

The Patent Prosecution Highways (PPH) network continues to expand. So far, 30 patent offices have taken part in PPH agreements. This can be seen as further supporting improvement of the PCT system. A patent applicant, whose patent claims are determined to be allowable or patentable in the office of first filing, can request under a PPH agreement that its corresponding application filed in a second office be advanced out of turn for patent examination, provided certain conditions are met. The office of second filing can then exploit the search and examination results of the office of first filing, and the applicant may as a result be able to obtain faster processing of a corresponding application filed in the second office. This facilitates the processing of patent applications by the offices participating in PPHs, resulting in savings for the offices involved and for applicants.

The America Invents Act (AIA), which sought to harmonize US patent laws with other systems around the world and promote strong patents to spur economic growth, was enacted on 16 September 2011. The significant provisions include (i) changing to a first-inventor-to-file standard with a grace period, (ii) removing failure to disclose "best mode" as a patent litigation defence, (iii) creating a prior user right, (iv) expanding the content allowed for prior art submissions during examination and (v) creating several new post-grant proceedings for challenging patents before the newly created Patent Trial and Appeal Board (PTAB).

The AIA phases in the first-inventor-to-file system for applications with effective priority claims after 16 March 2013. These applications are subject to absolute novelty requirements and are susceptible to attack based on prior public uses outside the US. A significant exception, however, is a limited grace period for disclosures made within one year prior to the effective filing date by the inventor, co-inventor or any third party who obtained the disclosed subject matter either directly or indirectly from an inventor. The AIA applications are also subject to an opposition-like proceeding called post-grant review (PGR) within the first nine months after issuance.

The remaining provisions went into effect immediately, and thus generally apply to all patents regardless of filing date. The removal of the "best mode" defence, addition of rights for prior commercial activity, and expansion of third-party prior art submissions during examination borrowed from the practice of other patent systems. The creation of the PTAB with its new post-grant proceedings drastically expands opportunities to challenge poor quality patents in the USPTO. Most significantly, inter partes review and the transitional program for covered business method patents have become a widely used means for attacking patent validity since those proceedings became available on 16 September 2012.

All of these projects – including improvements to the PCT system, PPHs and work of the IP5 offices – show very encouraging signs of a strong interest among patent offices that engage in search and examination of patent applications to improve the conditions for cooperation on both multilateral and bilateral levels.

FUTURE PERSPECTIVES | The problem with backlogs at the major patent offices will apparently continue for a considerable amount of time. Focusing on possible remedies will remain an important topic for patent offices and patent applicants as well as for third parties and for society.

Business, as a major user of the PCT system, has supported the system as being most beneficial and encourages the efforts in WIPO to enhance it. In particular, business will continue to follow and support efforts towards improvement of the PCT system to make it an effective instrument for work-sharing of patent searches and examination. Patent Prosecution Highways are positive developments both in their own right and also as means for the improvement of the PCT system. Business will continue to follow and support the development of PPHs to ensure their effectiveness, sustainability and consistency with the PCT system, among other things. Moreover, the work of the IP5 offices on their foundation projects is an important and positive development and merits close monitoring by business.

Business notes with concern the continued blockage of substantive patent law harmonization discussions in the WIPO SCP. At the same time, the work and studies done on the topics on the SCP agenda, as well as the work in the WIPO PCT Working Group, deserve to be actively followed.

Business should take an active part in the general debate on the balance of the patent system and explain its positive role in supporting innovation and economic development.

Governments should take steps to strengthen the PCT system, enhance the quality of work done by national offices under the system and encourage its use by applicants. Governments should also support work-sharing efforts consistent with the PCT system, such as those represented by PPHs. Governments should also support work on the IP5 foundation projects.

ICC CONTRIBUTIONS | ICC attends the SCP sessions and has made statements and/or submitted papers on the topics of client/attorney privilege, exceptions and limitations to patent rights, and standards and patents. ICC will continue to support the use and strengthening of the PCT and will also follow the work of the IP5 offices on work-sharing. Moreover, ICC will also continue to follow the evolution of other work-sharing initiatives, including the Patent Prosecution Highways (PPHs) that have been put in place between many patent offices. ICC has issued a paper on "Cooperation between patent offices: prior art searching of patent applications" (28 June 2010).

2. Patent quality

BACKGROUND | The increasing numbers of patent applications filed worldwide in recent years has led to large backlogs of pending applications awaiting examination and decision as to grant. In parallel, concerns have been raised that the quality of granted patents has gone down and that this may have shifted the balance between the interests of rightsholders, on the one hand, and the public interest on the other, with the consequence that the proper functioning of patent system is at risk.

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CURRENT LANDSCAPE | As a result, the issue of patent quality is being studied and action is being taken at different levels. At the patent office level, patent quality is a major theme in many countries, both in the national context as well as in the context of cooperation between the patent offices in China, Japan, Korea, the US and the European Patent Office, the so-called IP5. In the IP5's work,

patent quality is one of the so-called foundation projects. The work on these technical levels is focused on elements such as patent examination procedures, work-sharing between patent offices and quality control systems. The WIPO Standing Committee on the Law of Patents (SCP) also has patent quality as one of its study topics.

Patent quality is also studied from other angles. For example, the effects of low quality patents on the role of patents as incentives for innovation and technological development may be studied from an economic perspective, while the extent of invalidation of patents in legal proceedings can be studied from a legal viewpoint.

The OECD is working on how to measure patent quality and has published a study "Measuring Patent Quality"¹⁸.

FUTURE PERSPECTIVES | Maintaining an adequate level of quality in granted patents is in the interest of all stakeholders. It is important for business to follow and engage in the work on this in different contexts.

3. Patentability of new uses for known compounds

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BACKGROUND | A new use for a known and eventually patented compound can be not only of societal importance, but also of commercial significance to the inventor of the new application. Hence, there is strong interest in granting appropriate protection of such so-called second-use inventions.

CURRENT LANDSCAPE | Many countries provide for second-use patents, although the permitted claim format may vary. A number of bilateral free trade agreements negotiated by the US expressly call for the patentability of all inventions. Andean Community countries and some other countries, such as Argentina and India, rely on a fundamentally different criterion for deciding whether patents can be granted with respect to second uses of known compounds, even if such use meets the standards of novelty, inventive step and industrial application.

In the Andean Community countries and in Argentina, once a compound is known, only the original use can be protected, while a new use for a known compound is considered a mere discovery not involving inventive activity. The Andean Court of Justice (ACJ) has interpreted Article 27 TRIPS as only requiring its members to grant protection for inventions that are related to products, compounds or processes exclusively. The ACJ further took the view that such second uses are a new category of invention different from the categories covered by TRIPS and therefore protection for such uses does not have to be granted under TRIPS. The ACJ also held that new uses are lacking industrial applicability.

The Indian Patents Act, in its Section 3, lists among non-patentable inventions the mere discovery of any new property or new use for a known substance.

While excluding only a certain claims format, the Enlarged Board of Appeals of the European Patent Office, in its decision G 2/08 issued in 2010, has explicitly confirmed a very broad approach regarding the patentability of such second uses under the current version of the European Patent Convention.

FUTURE PERSPECTIVES | Smaller enterprises that do not have the financial or infrastructural capability to undertake development of new compounds for medical use may well be able to develop new uses and formulations, including those that are particularly adapted for use under specific local conditions.

¹⁸ OECD Science, Technology and Industry Working Papers 2013/03 – 6 June 2013

Providing for patentability of new uses and formulations will therefore encourage R&D by such enterprises with beneficial economic and societal impacts.

Business requires full protection for innovation and strongly supports initiatives which aim to provide appropriate patent protection for new uses. Companies should be encouraged to increase investment in the evaluation of known compounds in order to identify new medical applications, especially in life-threatening situations.

Business needs to convince competent authorities, such as governments, WTO and WIPO, that such a second use is more than a "mere discovery" and represents innovation with industrial applicability which merits full protection provided that it fulfils the statutory criteria for patentability, such as novelty and inventive step. Efforts must be made to convince governments that all types of inventions, except the ones defined in Articles 27.2 and 27.3 TRIPS, should have access to patent protection in strict compliance with Article 27 TRIPS.

4. The work on the patent system in Europe

BACKGROUND | In Europe, the lack of a unitary title and the absence of an integrated, specialized and unified jurisdiction for patent-related disputes have for many years been subject matter for discussion between the European Commission, EU Member States and stakeholders. Finally, agreement was reached for those two issues to be dealt with as a package comprising an EU Regulation on a European patent with unitary effect (Unitary Patent; UP Regulation), an EU Regulation on the translation arrangements for a Unitary Patent (UPTA Regulation) and an Agreement on a European Union Patents Court (Unified Patent Court (UPC) Agreement). Unitary effect means that the Unitary Patent shall provide uniform protection and have equal effect in all the states participating in the Unitary Patent system (UP Member States).

However, language as a politically sensitive issue related to the national identity, culture and sovereignty turned out to be the key problem. As no agreement between all the EU Member States could be reached on the translation arrangements, the EU Council decided on 10 March 2011 that the UP Regulation and the UPTA Regulation should be handled under a so-called "Enhanced Cooperation" procedure provided in the EU Treaties. Of the (then) 27 EU Member States, only Italy and Spain did not join this Enhanced Cooperation and brought an action against this procedure to the European Court of Justice (ECJ), which was dismissed on 16 April 2013. However, Spain launched two further actions before the ECJ in March 2013 which, to date, were still pending. A decision of the ECJ on these actions is expected to issue in early 2015.

CURRENT LANDSCAPE | On 11 December 2012, the European Parliament voted positively on the EU Council's compromise proposals for the two draft regulations (Unitary Patent and its Language Arrangements). The regulations entered into force on 20 January 2013. However, the regulations will only apply from the date of entry into force of the UPC Agreement.

The UPC Agreement had been signed by 25 EU Member States by 5 March 2013. It will however need to be ratified by at least 13 states, including France, Germany and the United Kingdom, to enter into force. A further prerequisite is the entry into force of compatibility amendments to EU Regulation No 1215/2012 (Brussels I Regulation) concerning jurisdiction and enforcement of judgments within the EU.

To date, of the 25 UP Member States only Austria and France have ratified the agreement, so it is still unclear when the Unitary Patent system will be applicable. Although the UPC Preparatory Committee set up to supervise preparation of the UPC expects it to be functional by early 2015, the pending

actions initiated by Spain before the ECJ against the Enhanced Cooperation procedure continue to add uncertainty.

FUTURE PERSPECTIVES | Once the UP Regulation is applicable, there will be no separate granting procedure for a Unitary Patent. Rather, a Unitary Patent can be obtained in a validation procedure after grant of a European Patent by the EPO according to the EPC. This validation will be similar to current individual validation of granted European Patents in EPC Member States. Conventional individual validation of the European Patent will still be available (in particular, for the EPC Member States not having access to the Unitary Patent). However, once validation of a Unitary Patent is selected, conventional individual validation in a UP Member State will be excluded and vice versa. The Unitary Patent can only be limited, transferred, revoked or lapse with effect for all the UP Member States. A Unitary Patent may be licensed with effect for the whole or part of the territories of the UP Member States. Renewal fees shall be paid to the EPO.

The UPTA Regulation, once applicable, provides that during a transitional period (which will end no later than 12 years from the date of application of the UPTA Regulation) additional translations must be filed upon validation of the Unitary Patent as follows: where the language of the proceedings of the European Patent is French or German, a full translation of the specification into English must be provided, whereas in the case of English as the language of the proceedings, a full translation of the specification into an official language of one of the UP Member States must be provided. These translations will be for information only and have no legal value.

The UPC Agreement, once in force, provides a specialized patent court having exclusive jurisdiction concerning the infringement and validity of individually validated national parts of European Patents and of Unitary Patents. However, for a transitional period of at least seven years (from the date the Agreement enters into force), European Patents and pending European Patent Applications may be exempted from this provision by filing a corresponding declaration (so called "Opt Out").

The UPC will comprise a largely decentralized Court of First Instance, a Court of Appeal and a Registry. The Court of First Instance will be composed of a central division (located in Paris with two sections in London and Munich) and of several local and regional divisions in the UP Member States. The Court of Appeal will be located in Luxembourg. The central division will be the exclusive forum for invalidity claims. However, invalidity may also be raised as a counterclaim in infringement proceedings before local or regional divisions.

The language of the proceedings before the local and regional divisions will be the official language at the seat of the division, but other choices of language will be available under certain conditions. The language before the central division will be the language of the proceedings of the European Patent. Appeals will normally be heard in the language used at first instance. All divisions will form an integral part of the UPC with uniform procedures; the divisions will be specialized and distinct bodies, but will be linked to the ECJ and aimed at providing interpretation and application of EU law and transitional agreements.

Stakeholders, as in the past, will continue to welcome and to follow the continued work in the EU on the UP system – in particular, the work of the UPC Preparatory Committee and the Administrative Council of the European Patent Organization on the implementation rules and the fee structure for the Unitary Patent – while emphasizing the need for cost-effectiveness.

ICC CONTRIBUTIONS | ICC will continue to follow and study the work on the detailed implementation rules and the fee structure for the Unitary Patent and the Unified Patent Court. As in the past, ICC will continue to file submissions on these topics with the competent instances.

5. Language considerations

BACKGROUND | Language is always a sensitive issue. From a strictly economic perspective, the benefit of a single language for patent procedures is self-evident not only to IP rightsholders but also to businesses seeking to enter foreign markets without infringing IPR. However, the choice of language has important implications for national identity, culture and sovereignty. The political sensitivity of this issue is demonstrated by the debate that has been taking place for many years over the European Commission's proposal for a Community Patent Regulation and can only be exacerbated on a worldwide scale.

CURRENT LANDSCAPE | To date, many countries allow the filing of patent applications using documents in a language other than an official language of the filing office. While, typically, a translation into the respective official language has to be provided within certain time limits, this option has greatly facilitated the handling of filings for applicants.

A further advance made for IP rightsholders in Europe was the Agreement on the Application of Article 65 on the Grant of European Patents (the London Agreement) which entered into force on 1 May 2008. This reduced the translation requirements for granted European Patents upon their validation in the individual Member States of the European Patent Convention (EPC). While the contracting states with an official language that is also an official language of the European Patent Office (including France, Germany and the United Kingdom) have now completely waived translation requirements for validation, the other contracting states require translations of the European Patent Office (English in most cases). The London Agreement however reserves the right to its contracting states to require translation of the full specification in the context of patent litigation. The London Agreement can be considered to be a milestone in considerably reducing validation costs for European Patents.

The progress in the development of machine translation tools made available, among others, by patent offices in Europe (EPO), Japan (JPO), Korea (KIPO) and China (SIPO) has brought along several advantages. Machine-translation facilitates fast and comparatively low-cost first-sight analysis of foreign language patent documents, either for prior art assessment or preventive infringement assessment of third party patents, the latter being a key issue for the market entry in countries with strong patent activity. Furthermore, machine-translation promotes work-sharing among patent offices and helps improve examination quality.

FUTURE PERSPECTIVES | The ongoing development of more powerful machine translation tools will further promote easy and low cost access to comprehensive patent information which may gradually reduce the significance of the language issue in the future. Patent offices, such as the world's five largest IP offices, known as the IP5 (EPO, JPO, KIPO, SIPO and USPTO), will continue to actively drive this process as the linguistic "corpus" of bi- or even multilingual exact translations available at these patent offices (e.g. from the translations of priority documents, etc.) is a highly valuable basis for achieving further progress.

In the meantime, any initiative building trust and understanding among the different stakeholders involved and evaluating possible solutions to achieve an acceptable compromise for reducing translation cost in patent prosecution, and preferably also in patent enforcement, will be welcome.

ICC CONTRIBUTIONS | ICC will continue to encourage initiatives aimed at reducing translation costs in patent prosecution and enforcement while preserving legal certainty for stakeholders involved. Furthermore, as in the past (see ICC paper "The Need for Further Accessions to the London

Agreement" of 22 June 2009), ICC will encourage governments who have not yet done so to access to the London Agreement as soon as possible.

II. DESIGNS

BACKGROUND | Designs have been a protected IPR for a long time and were acknowledged as such in the 1886 Paris Convention. The 1925 Hague System (last updated by the 1999 Geneva Act) set up a centralized filing system through WIPO for the contracting parties (which number 62 to date), including the EU and the Organisation Africaine de la Propriété Intellectuelle (OAPI). The next countries expected to join in 2014 are the US and possibly China. The EU 6/2002 Regulation of 12 December 2001 enables the grant through OHIM of a European Community registered design covering all 28 EU countries for a maximum of 25 years, and affords protection for three years to an unregistered community design. These international instruments aim at facilitating filing in several countries, through speedy processing by a single portal and with no substantial examination (which is deferred until examination by the national offices).

With the increasing success of design filings, the need for harmonization of substantive laws on designs becomes an important concern. Indeed national differences in substantive rules – such as the criteria, scope and duration of protection; the coexistence with other forms of protection such as copyrights and trademarks; the infringement tests and effective remedies against infringement – make it difficult for design owners to obtain effective international protection.

CURRENT LANDSCAPE | The high disparity of design regimes at the international level – TRIPS devotes only two articles, 25 and 26, to the protection of industrial designs. They set the principle of a minimum standard of protection for new or original designs, which should be protected for at least 10 years against commercial manufacture and sale of products reproducing the protected design that has been copied. Today, national design laws differ widely from one country to another on many aspects, such as: examination/no examination of the novelty/originality criteria at registration stage; term of protection; the interaction between design protection and other forms of protection such as copyright, trademarks and patents (the US and China have for instance design patents and most countries acknowledge cumulative protection but continued copyright protection may be dependent on maintenance of design protection), assessment of infringement, etc.

Furthermore, the concerns and stakes involved in design protection are highly dependent on the features of the concerned industry sector. For instance, whereas the fashion industry seeks improved copyright protection in the US, the automotive industry is aware of the technical function hurdle and antitrust objections to design protection for spare parts, and the mobile device industry has been taken off guard by the battle of designs on minimal geometric shapes for mobile phones and digital tablets.

The path to harmonization of substantive design law – Efforts are currently being made to promote a design law treaty at WIPO. The WIPO Assembly of 1-9 October 2012 approved the results of a study on the potential impact of simplification and standardization of registration of designs which showed that users from high-, middle- and low-income countries overall found this move positive and also that technical assistance to upgrade the existing system in less developed countries was needed. This consensus was confirmed by the results of the extended surveys that ended in March 2013.

To date, there exists a draft design law treaty that covers registration-related formalities but not substantial issues. The main proposed changes to the design system are rather complex and relate to: methods and the number of representations of a design; the number of designs in a single application; a grace period of 6-12 months from public disclosure; a secrecy period after filing; the

division of applications; and international standardization of information to submit a design application. To date, WIPO is still considering whether to convene a diplomatic conference for the adoption of a design law treaty.

The European Community Design regime, which provides for a unitary title throughout the EU, is a successful example of regional harmonization. In addition to the European "Design Directive" of 1998 which substantially harmonized the national design laws of the EU Member States, the subsequent 2001 "Design Regulation" established a Community registered design right lasting up to 25 years for which OHIM is the receiving office for applications. The same Regulation also provides for the creation of a Community unregistered design right that arises automatically upon first publication of the design in the EU and lasts for three years.

A design owner, when seeking protection at EU-level for a design that is new and has an individual character, may thus opt for a registered right which provides full-fledged exclusive rights on the design. The design owner has also the option of an unregistered three-year Community design right which arises automatically as from the first disclosure in the EU, but only grants protection against copying (defence of independent creation). The scope of protection for both types of rights is identical and benefits any design that produces on the informed user a different overall impression. Since 2010, the ECJ has been asked to clarify the meaning of several concepts in the CDR such as "product at issue", "degree of freedom of the designer", "informed user" and "overall impression". These decisions do not address all the points raising issues, such as the impact of the existing design corpus on the assessment of the individual character of a Community design.

Lastly, the Directive and the Regulation both allow the design right to overlap with national copyright and other forms of protection. This is important considering that prior to the Directive the interaction between copyright and design right was subject to a patchwork of regimes (France, with its "unité de l'art" theory allowed full cumulation; certain member states, like Germany, allowed partial cumulation and others, like Italy and its "scindibilità" principle, prohibited cumulation). In its decision C-168/09 Flos SpA v. Semeraro Casa & Famiglia SpA, the ECJ held that Member States cannot enact legislation that has the effect of rendering nugatory the cumulative copyright protection provided by Article 17 of Directive 98/71 on the Legal Protection of Designs.

The improvement of tools available to ease filings and searches of designs – Progress has been made on several projects conducted by WIPO: (i) the opening of a new e-filing platform (WIPO user account, automatic check of images, integrated fee calculator, credit card payment); (ii) the creation of a "Hague Portfolio Manager" (enabling access to data uploaded to the user account and interaction with the International Bureau); and (iii) the publication of the 10th Locarno classification in 2014.

The Locarno classification has 32 classes and 219 sub-classes covering 7,024 indications of products classified; first according to their purpose, and then according to the object that they represent. The current system is not fully satisfactory because it is difficult to identify designs similar or identical in another product range, which is a problem because, in many states, the scope of protection extends to all products having a similar appearance, including those belonging to another product range.

A pilot group has been attempting for some time to improve the search possibilities by creating a complementary index to take into account visual features, without setting aside other indexing systems for designs. The Locarno Pilot Group with the Cooperation Fund of OHIM has selected recently two design projects: the development of a software tool to search images on relevant databases and DesignView, a portal for registered design information from national offices, OHIM and WIPO.

FUTURE PERSPECTIVES | At the regulatory level, the prospect of the adoption of a Design Law Treaty remains realistic and welcome although the calendar is still uncertain. Some countries, like

the UK, have undertaken an overhaul of their national design legislation to bring it into compliance with EU law and to improve the overall designs framework. In the US, attempts to improve timelimited copyright protection of fashion designs have not yet been successful.

At business level, design protection worldwide remains a delicate strategy and the complexity and uncertainty surrounding enforceability of protected designs is not satisfactory. This should not however slow the rising design filing trend. Nevertheless, low quality or bad faith registrations of designs should be looked at severely by national administrative and judicial authorities. A few challenges will have to be addressed in the short run: collaborative conception of designs and ownership; 3D-printing and potential infringement; availability of injunctive relief; and assessing design protection advantages.

III. COPYRIGHT

BACKGROUND | The protection of copyright and related rights is taking place within a framework of complex legal, economic and social issues. New ways of facilitating inexpensive and virtually instantaneous reproduction, distribution and display of works and other subject matter have created great opportunities and challenges for rightsholders, distributors and consumers. New technology has increased opportunities for a broad number of players (new and traditional), ranging from commercial content providers (e.g. producers and publishers of copyrighted material) to the IT, telecommunication sector and consumer electronic industries, as well as private persons, to name a few. The evolution of digital networks in general, and electronic commerce in particular, continue to increase the ways in which content can be used and experienced. This raises the need for copyright and related rights protection and licensing of such rights to respond to the new challenges and opportunities raised by digital distribution methods.

CURRENT LANDSCAPE | Important contributions to the new framework at the international level are the 1996 WIPO Treaties on Copyright (WCT) and on Performances and Phonograms (WPPT) (collectively the WIPO Internet Treaties), which both entered into force in 2002. To date, 91 countries have officially ratified the WCT and 92 have ratified the WPPT. A number of additional countries have implemented provisions of the treaties without ratifying. However, many countries have not yet fully implemented these treaties. In addition to the WIPO Internet Treaties, WIPO is the forum for discussions on updating the protection for copyright and certain categories of related rights as well as for discussions regarding exceptions and limitations, e.g. for the visually impaired, to promote broader access to copyright works. In June 2012, the WIPO Beijing Treaty on Audiovisual Performers (BTAP) was successfully concluded, updating the rights of audiovisual performers for the digital environment.

FUTURE PERSPECTIVES | The economic contribution of copyright-dependent industries is significant, and often not fully credited. It is important that national decision-makers and opinion leaders increase their awareness of the economic importance of copyright, and the broad set of industries that depend on its protection and sufficient licensing possibilities of their rights for their viability. Consequently, WIPO continues working with member governments from each region of the world to analyse the impact of copyright-dependent industries on their respective national economies.

ICC CONTRIBUTIONS | To fully exploit the possibilities of the digital revolution to the benefit of all parties while respecting underlying rights to intellectual property, business will intensify its work towards the common interest of promoting the protection of intellectual property and legal offers of protected goods/works in electronic commerce and other digital offers.

Business should make use of all opportunities available to communicate its concerns to lawmakers to provide for a legal framework that encourages creativity in the information society. Business

encourages the implementation of the WIPO Internet Treaties, which take into account the legitimate interests of all stakeholders involved, while fostering creativity and investment in the relevant industry sectors. Business should continue to monitor the implementation of these treaties in order to ensure that the stated goals are fulfilled.

Business should continue to seek the appropriate application of existing copyright legislation to enforce the rights granted to rightsholders, while taking into consideration the eligible interests of service providers. At the same time, business should seek consensus on how copyright enforcement and licensing for legal offers can be made more efficient and effective and less costly in the face of new forms of infringement, in compliance with the WIPO Internet Treaties, under such national legislation as the DMCA or the EU's Copyright and E-Commerce Directives, or other multilateral agreements. Business welcomes continued research at the national level to identify the contribution of copyright-related activities to the national economy.

Governments should update copyright protection in substance (by implementing the WIPO Internet Treaties) and in terms of well-balanced enforcement mechanisms (by, at a minimum, implementing the terms of the TRIPS Agreement). The goal must be to establish a balanced and effective framework of accountability that respects international obligations, provides incentives for increased inter-industry cooperation to deter and respond to infringements, promotes responsible business practices, does not impose unreasonable burdens on intermediaries, fosters legal offers by promoting licensing structures for such offers and preserves an appropriate role for courts.

Any legislation that deals with the applicability of copyright infringement liability rules should examine carefully how these rules apply to all stakeholders in the digital networked environment as part of ensuring the overall effectiveness of the copyright protection framework.

Any framework that provides for limitations on liability for service providers should be restricted to damages and other monetary relief. Injunctive relief and other forms of equitable relief should be available subject to the evolving laws governing such relief.

1. Moral rights

BACKGROUND | Moral rights entitle authors to prevent use without attribution or distortion of their work, and are established at the international level in the Berne Convention. Moral rights are independent of economic rights.

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CURRENT LANDSCAPE | Creators and performing artists are seeking reassurances that their moral rights are respected, especially by third parties, and that their works and performances are not unduly manipulated in the digital-networked environment. The recently concluded Beijing Treaty on Audiovisual Performances (BTAP) included an obligation on signatory countries to protect the moral rights of audiovisual performers.

FUTURE PERSPECTIVES | Business is working towards practical rules that allow for the efficient and customary exploitation of works, including the creation of derivative works, which will ultimately benefit producers, performers and authors.

Governments should take a reasonable approach to the issue of moral rights in a way that would prevent in particular the distortion of works and performances by third parties, while not undercutting the economic foundation and customary practices of the industry upon whose success both performers and authors depend, and the new opportunities for innovative licensing of adaptations of works which have appeared in some industries.

2. Protection of audiovisual performers

BACKGROUND | Audiovisual performers have been seeking an update of their rights at an international level since negotiations began for the WIPO Internet Treaties. A WIPO diplomatic conference held in December 2000 was unsuccessful in achieving the adoption of such an instrument, but agreements reached during the conference prompted continuing discussion within WIPO, resulting in various proposals for a possible way forward.

CURRENT LANDSCAPE | In mid-2011, agreement was reached on several remaining issues of substance. Following a successful negotiation, the Beijing Treaty on Audiovisual Performances (BTAP) was concluded in June 2012 and signed by 59 countries, providing actors and performers in audiovisual works with minimum economic and moral rights in their performances.

FUTURE PERSPECTIVES | The BTAP will enter into force three months after 30 countries have deposited their instruments of ratification or accession. With increased ratification/accession, the BTAP is well positioned to solidify the existing international legal protective framework for audiovisual performers. Business actively participated in the negotiations leading up the conclusion of the BTAP. Ratification will allow for the orderly exploitation of audiovisual productions to the benefit of all parties involved in creating and distributing such works.

Governments should ratify and implement the BTAP, recognizing the particular needs of filmmaking and distribution and the huge investments involved.

3. Protection of broadcasters

BACKGROUND | Broadcasters have long been seeking an update of their rights in response to market changes and technological developments, currently embodied at an international level in the Rome Convention. Discussions and proposals for a Broadcasting Rights Treaty have been ongoing at WIPO for a number of years. Despite a conditional resolution by the WIPO General Assembly in 2006 that a diplomatic conference be scheduled for late 2007, no consensus was achieved on the objectives, specific scope or object of protection and the diplomatic conference failed to convene.

CURRENT LANDSCAPE | While broad agreement exists on the need to update the rights of broadcasters, the WIPO expert committee continues regular discussion of proposed treaty language, including with regard to the objectives, specific scope and object of protection.

FUTURE PERSPECTIVES | The issue remains on the WIPO expert committee's standing agenda with a view to convening a diplomatic conference only after reaching agreement on the three issues mentioned.

Business is participating in ongoing discussions of potential updates to broadcasters' rights. Governments, through their representation at WIPO, are engaged in ongoing discussions regarding recognition and protection at the international level of updated rights of broadcasters in their broadcasts.

4. Access to published works for persons who are blind, visually impaired or otherwise print disabled

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BACKGROUND | In an effort to increase the availability of published materials in formats accessible to the blind, visually impaired or otherwise print disabled, WIPO member states convened a diplomatic conference in June 2013 to negotiate a treaty to increase access and enhance efficient cooperation among member states. The goal was to encourage harmonized laws and efficient cross-border exchanges of protected works, while taking into account the impact on rightsholders.

CURRENT LANDSCAPE | On 27 June 2013, the Marrakesh Treaty to Facilitate Access to Published Works for Persons who are Blind, Visually Impaired or otherwise Print Disabled¹⁹ was adopted under the auspices of WIPO. More than 150 countries signed this international landmark treaty dealing with both domestic and cross-border exchange of published works in accessible format for people with print disabilities. In particular, the treaty requires contracting parties to adopt limitations and exceptions to national copyright protection for the reproduction, distribution and making available of published works in accessible formats. The treaty will harmonize these limitations and exceptions across borders to allow organizations serving the blind, visually impaired or print disabled to exchange published works. To prevent misuse, cross-border exchange is limited to special cases that do not unreasonably prejudice rightsholders' interests nor interfere with the normal exploitation of published works.

FUTURE PERSPECTIVES | The treaty will enter into force after 20 countries have deposited their instruments of ratification or accession.

5. Orphan works

BACKGROUND | The issue of "orphan works" describes the situation where the owner of a copyrighted work cannot be identified and located by someone who wishes to make use of the work in a manner that requires permission of the copyright owner. The inability to identify and locate a copyright owner will inhibit the use of such work where copyright law requires permission from the owner for such use, since the prospective user may not wish to proceed with the use in the absence of permission from the owner, given the risk of potential copyright liability in the future.

CURRENT LANDSCAPE | Several jurisdictions, including Canada, United Kingdom and the EU, have examined the issue of orphan works and enacted certain legislative solutions that attempt to balance the interests of both the prospective user, as well as the missing owner, in a way that the orphan status of the work does not constitute a bar to its further use. The United States has examined this issue, but has not passed any legislation as yet.

A uniform approach has not emerged, with countries choosing to follow either an approach that involves pre-clearance and licensing of such works, or one that deals with the limitation of certain remedies in the event that a rightsholder arises. The United Kingdom and Canada follow the former approach, providing solutions that rely on the granting of non-exclusive licences, with a fee to be paid to the authorizing body to be held until such time as a licensee emerges. Whatever the approach, prospective users are required to first show they have conducted a "diligent search" to identify and locate the owner.

While the United States has not enacted legislation, certain bills were considered in 2008 that would have provided for a system by which the remedies available to resurfaced owners of orphan works

¹⁹ www.wipo.int/meetings/en/doc_details.jsp?doc_id=241683

would be limited if the user of the orphan works could show that it had, prior to use, performed a diligent search to identify and locate the owner without success. This approach was designed to be a defence to a claim of copyright infringement, and its application would therefore be dependent on the factual circumstances of particular instances.

In October 2012, the EU approved a directive dealing with orphan works which is applicable only to certain types of works: (i) books, articles and other writings; (ii) certain "audiovisual works contained in the collections of film heritage institutions"; and (iii) cinematographic works produced by public service broadcast organizations before 31 December 2002, all of which must be first published or broadcast in a member state. The directive provides for member states to enact legislation that would enable the use of orphan works by "libraries, educational establishments or museums, archives, film or audio heritage institutions and public service broadcasting organizations" that are located in member states and that have public service missions. The uses are subject to the three-step test, and must consistent with the public service mission of the relevant entity.

FUTURE PERSPECTIVES | As of the time of publication, the United Kingdom had yet to promulgate a set of guidelines which would outline the manner in which its orphan works licensing authority would operate. The United States is also expected to give further consideration of this issue.

IV. TRADEMARKS

The more intensive use of trademarks on the Internet for different purposes – including for e-commerce, by search engines and on social networks – has imposed new challenges for business. Whereas these new platforms provide trademark owners with faster and more efficient means to promote and advertise their trademarks, such owners have taken on new responsibilities and been faced with new problems to protect their trademarks and enforce their rights.

While the Internet allows faster communication and can make a previously unknown trademark famous within a very short time frame, it can at the same time disrupt the reputation of a mark or a business within a couple hours.

In this new scenario, trademark owners have been forced to change their marketing strategies, to develop new ways of communicating with existing and potential consumers, to spend more money and effort to monitor trademark infringement and, if it occurs, to identify the infringer. If identification of trademark infringers in traditional commerce (i.e. in the "real world") has always been difficult, it has become even more difficult to track them in the "virtual world" and on different Internet platforms.

These new challenges and developments have raised new topics for discussion among governments, legislators and stakeholders. Some of the most relevant ones are mentioned below.

1. Harmonization and streamlining of trademark rules and procedures

BACKGROUND | There is no doubt that the harmonization of rules and procedures makes trademark protection more simple and efficient, less costly and more easily manageable by business.

CURRENT LANDSCAPE | A very important tool for the global protection of trademarks is the Madrid Agreement (1891 and amended several times), and particularly the Madrid Protocol (1989), which allows protection of a mark in a large number of countries by obtaining an international registration

which has effect in each of the countries that have been designated. The main advantage of the Madrid system is the ability to file a single trademark application with WIPO instead of filing a separate application and following domestic procedural rules in each country where protection is sought. Other advantages include: filing in a single language (English, French or Spanish); an online facility for central payment of renewal fees for international registrations using a credit card or a WIPO account; a single application for recording a change of name/address, which can be extended to all the designated countries; and a single renewal date and request. In view of these advantages, many countries have joined the Madrid system – which in March 2014 counted 91 members – and many others are expected to join in the near future.

In the procedural area, the Singapore Treaty on the Law of Trademarks (2006) built on the Trademark Law Treaty (1994) and enlarged its scope. As of March 2014, 53 and 36 countries had ratified the Trademark Law Treaty and the Singapore Treaty respectively.

Another initiative towards harmonization and improvement of trademark procedures is TM5, a network consisting of the five main IP Offices: JIPO (Japan) KIPO (Korea), USPTO (United States), the State Administration for Industry and Commerce of the People's Republic of China (SAIC) and the Office for Harmonization in the Internal Market (OHIM). TM5 aims to promote collaboration between the offices and to improve their trademark systems through exchange of information and experiences.

FUTURE PERSPECTIVES | A successful example of harmonization of trademark rules and procedures is the European Community Trademark system that, after 17 years, continues to be a vital tool for businesses worldwide. A reform of this system is now under way. On 27 March 2013, the European Commission presented a package of initiatives for the reform of the European Trademark System. The proposed package has three initiatives: the recast of the Trade Mark Directive (TMD), the revision of the CTM Regulation and the revision of the fee regulation on the CTM. These legislative proposals are likely to be adopted in 2014. The goal of the reform is to foster innovation and economic growth by making trade mark registration systems all over the EU more accessible and efficient for businesses in terms of lower costs and complexity, increased speed, greater predictability and legal security. These adjustments dovetail with efforts to ensure coexistence and complementarity between the Union and national trademark systems.

2. Famous / well-known marks

BACKGROUND | Since well-known marks are especially vulnerable to abuse, it has long been recognized in the Paris Convention, and reaffirmed in TRIPS, that special protection is needed

recognized in the Paris Convention, and reaffirmed in TRIPS, that special protection is needed for such marks. However, enhanced protection through concepts broader than mere trademark infringement may be needed, e.g., through rules of unfair competition, dilution or "indication of connection".

CURRENT LANDSCAPE | In 2006, the US enacted the Trademark Dilution Revision Act, according to which the owner of a famous mark may apply to the relevant court for an order prohibiting continuing, or anticipated use likely to cause dilution by blurring or tarnishing of the famous mark regardless of likely confusion or economic injury.

Other countries, like Brazil, Paraguay and Argentina, provide trademark owners, especially owners of well-known marks, with the possibility of enrolling their marks in a special, although sometimes informal, database used by the customs authorities to fight piracy.

Other countries such as Japan allow for a defensive registration for dissimilar goods or services of the well-known mark.

The WIPO Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks, adopted in September 1999, provides welcome guidance to both trademark holders and competent authorities concerning the criteria for determining what constitutes a well-known mark. They operate as non-binding guidelines to the application of the Paris Convention and TRIPS. As the Recommendation does not provide guidance on specific implementation measures, national measures to implement the Recommendation and their legal effects vary from country to country and can range from establishing an official register (sometimes open only to domestic brands) to having informal lists maintained by the national authorities.

FUTURE PERSPECTIVES | There should be a continuous effort to protect well-known marks by means of adequate legislation and, above all, by combating parasitical behaviour and counterfeiting. At a certain point, it would be interesting to initiate discussions to establish an international system for recording and recognizing rights in well-known trademarks and the WIPO Joint Recommendation would be a helpful tool in this process.

3. Searches

BACKGROUND | The lack of full, worldwide, national search possibilities through the Internet for all forms of trademarks creates uncertainty for companies wishing to register such marks as they are unable to verify if such marks are already registered.

CURRENT LANDSCAPE | A welcome beginning has been made with the compilation by the Office for Harmonization of the Internal Market (OHIM) of an online dictionary of terms related to the classification set out in the Nice Agreement. This global classification tool TMClass (previously called EUROCLASS) includes access to the databases of EU national IP offices and other major IP offices, including the USPTO and Japanese Patent Office (JPO). TMClass is a free online tool based on the Nice Classification system that helps users correctly classify goods and services when filing a trademark. It allows users to search for terms in any of the 24 languages available. TMClass can also be used to verify lists of terms to check if they are acceptable to any of the participating IP offices. Additionally, the tool translates equivalent goods and services terms into all available languages.

More recently, the OHIM, WIPO and the EU national IP offices have created another tool to help with the classification process called Taxonomy. Taxonomy is a hierarchical structure based on the Nice Classification terms, with broader terms on top and more specific terms below. This structure will be integrated into classification tools such as TMClass and the new e-filing systems, offering an intuitive search where users can navigate the classification tree to find the right term within each category.

Another important tool for searching trademarks is TMView, developed by the Office for Harmonization of the Internal Market (OHIM), which now covers all 28 national offices of the European Union plus Mexico, Turkey, Russia, US, Morocco and Norway. The goal is to extend this tool to more countries outside the European Union.

A more ambitious project launched by WIPO aims to make freely available to the public global trademark searches through the Global Brand Database. The Global Brand Database includes trademarks, appellations of origin, emblems, international registrations under the Madrid system and the trademark database of twelve countries. In 2014, the number of records surpassed 11 million with the addition of the USPTO trademark database.

However, none of these tools will work efficiently if the description of goods or services is not clear and precise enough upon filing the mark. Lack of clarity and precision may lead not only to unreliable results in searches but also to mistakes in the examination of trademark availability on relative grounds.

FUTURE PERSPECTIVES | There is an increasing tendency for trademark databases to be integrated for searching purposes, facilitated by new technologies and the gradual modernization of IP offices worldwide. The participation of more countries in the Global Brand Database would be welcome, as this database can be a useful and cost-efficient tool, especially for companies with operations in foreign countries.

4. Restrictions on the use of trademarks on packaging

BACKGROUND | Over the years, health authorities of several countries have gradually limited the use of brands on tobacco packaging by obliging companies to affix graphic and/or text warnings and restricting the use of colours, fonts and certain words, based on arguments relating to public health. These restrictions have become harsher, and warnings have grown bigger to the point of occupying a large portion of tobacco packs.

Since 1989, the tobacco control groups in Canada, Australia, New Zealand and the United Kingdom have proposed the introduction of tobacco packaging reforms to their governments, assuming that it is an important factor in the control of tobacco consumption. Mandatory standardized packaging of tobacco (plain packaging) was only adopted for the first time by Australia. The Australian Tobacco Plain Packaging Act 2011 (the TPP Act), prevents tobacco trademark owners from using their non-word trademarks in their entirety by imposing restrictions upon the colour, shape and finish of retail packaging for tobacco products and obliging companies to indicate their brand name (word mark) in a small standard font, without any logo or figurative elements. This means that tobacco trademarks – particularly for distinctive logos, pack front and trade dress and shape, and including those trademarks containing words, letters, numbers, designs, drawings, colours, etc. – can no longer be used on packs available to consumers in Australia.

CURRENT LANDSCAPE | Besides Australia, some countries like Canada, the UK and Brazil, as well as the EU, have increasingly introduced more restrictive regulations regarding tobacco packs over the years, but so far none of them have passed a law as restrictive as the TPP Act.

The Australian TPP Act has given rise to intense discussions on the topic of plain packaging worldwide because it has a direct impact on tobacco companies' IPR. There are arguments on both sides, for example:

a) Standardized packaging will prevent trademark owners from using their registered trademarks, artistic works and industrial designs embodied in the tobacco packaging. This is extremely important, not least because the use of trademarks is fundamental to the functioning of the trademark system. In particular, use is critical to enable consumers to determine the origin and quality of goods, and to protect the significant investment that trademark owners make in relation to each trademark. It is argued that the removal of the accessory elements that accompany many trademarks on packaging will reduce both the ability of consumers to differentiate between brands and also their ability to identify the source of products. Governments would argue that the brand name (in plain type) is sufficient for consumers to be able to exercise choice and identify the source of products. Governments have also argued that the right to property is not absolute (and must be considered in relation to its social function). However, there are threshold questions as to whether those counter-arguments address the significant harm that plain packaging causes to IPR and the normal functioning of IP systems and to what extent that harm can be justified.

- b) For manufacturers or service providers who have invested the time, effort and money to build up a good brand image, trademarks are a way to prevent others from unfairly taking advantage of their reputation. This ensures fair competition in the marketplace and encourages companies to invest in the quality and reputation of their products or services. As set out above (see Intellectual Property Basics – Trademarks), trademark owners have exclusive rights to prevent third parties from using their trademarks, in order to preserve the owners' (and their licensees') exclusive use. Those rights are enhanced in relation to well-known trademarks (and marks with a reputation), as recognized by the Paris Convention and TRIPS. By preventing the use of trademarks, plain packaging may significantly harm trademark owners' rights to prevent infringement (which is particularly important in combating counterfeiting), including by impairing and ultimately depriving trademark owners of the protected status of well-known marks.
- c) It is argued that standardized packaging offends trademark owners' exclusive rights and should therefore be treated as an expropriation of their intellectual property that would expose the government to monetary compensation claims. In Australia, there was a challenge to the TPP Act that primarily concerned whether there was an "acquisition" of trademark owners' rights by the Commonwealth of Australia other than on just terms. Although some judges in the Australian High Court commented that the TPP Act deprived trademark owners of their rights, it ultimately concluded that this deprivation did not result in an "acquisition" (the test under the Australian Constitution) of those rights.
- d) Plain packaging will deny trademark owners the opportunity to use their marks as registered and consequently expose them to non-use cancellation actions. Governments may say that owners are not being deprived of using their marks on the basis that trademark owners can still use the name (i.e. the word mark) of their brand and that – depending on how a plain packaging measure works – the restriction affects only the ornamental features of the marks. This does not address the concern raised by trademark owners that ornamental designs and graphic versions of word marks are also often trademarks in their own right which have to be used to maintain protection. Governments may also argue that a cancellation action can be avoided for a justified or proper reason.
- e) Plain packaging is likely to facilitate the counterfeiting of tobacco products, as it will be easier to copy plain packages than distinctive, more complex ones which change over time. Consequently, it will be more difficult for consumers to distinguish between genuine and counterfeited products and for enforcement officers to recognize counterfeits. It is argued that, contrary to the purpose of the health authorities, facilitating the counterfeiting of tobacco products may have the negative public health impact that consumers would be buying from an illegal and unregulated source.
- f) It is also contended that standardized packaging constitutes a breach of international treaties, namely Article 7 of the Paris Convention, Articles 8(1), 15, 16 and 20 of TRIPS and Article 2.1 and 2.2 of the WTO Agreement on Technical Barriers to Trade.
- g) Governments and health authorities could consider other measures that may be more effective in help discourage smoking, such as youth targeted educational programs, consistent tax policies, better enforcement of laws that prohibits the retail of tobacco to children, etc.

Part III of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC), in force since 2005 and signed by 168 countries, contains provisions regarding tobacco packaging but does not require the parties to the FCTC to adopt plain packaging. Plain packaging is mentioned in paragraph 46 of the non-binding guidelines concerning Article 11 (Parties "should consider" such measures).

Ukraine, Honduras, Dominican Republic, Cuba and Indonesia have presented complaints against the TPP Act at the World Trade Organization, and more than 35 other countries have joined the dispute as third parties. On 5 May 2014, the WTO Director-General composed the panels for each of these disputes.

The implications of plain packaging on TRIPS and Paris Convention obligations raise fundamental questions on how measures to protect public health should function alongside trademark systems. Issues under discussion include: the nature of trademark rights (positive or negative rights?); if moral and public order principles can be applied, considering that the product on which the mark used (tobacco) is actually a legal product; and to what extent the public interest should prevail over IPR.

This is therefore a very controversial topic.

FUTURE PERSPECTIVES | Although Australia has been the first and only country so far to implement mandatory plain standardized packaging of tobacco, other countries like the UK, Ireland, France, South Africa, China, Norway and India, among others, have at some point signalled that they may do the same. However, it seems that some of those countries are prudently taking a "wait and see" position to observe the possible consequences of the TPP Act and also the outcome of the ongoing disputes at the WTO. There is also a concern that plain packaging for cigarettes will create a precedent for a whole range of consumer products, thereby opening the door to extending this policy to other industries and other brand owners.

5. Non-traditional marks

BACKGROUND | Non-traditional or non-conventional marks are those that differ from the usual concept of a mark, that is, the word, design, letter or combination of letters that distinguishes products and services of different undertakings.

The development and globalization of commerce has increased competition among companies or entrepreneurs, and for this reason, many industries or businesses have tried to make their products or services more sophisticated, seeking creative ways of communicating their messages to the public, attracting consumers' attention and distinguishing their products or services from those of their competitors. This phenomenon has led to changes in the appearance of marks, the shape and packaging of products and in the way services are offered. This is easily perceived by comparing the evolution of the aesthetic shape of perfume flasks and food recipients, for example. Even services have had to be adapted to the new reality, and the best examples are delivery services, courier services and electronic commerce.

Marks themselves have also changed as a result of modern communication tools and information technologies such as mobile devices, websites, electronic messaging and electronic cards. Originally conceived as a name on a label, marks have changed dramatically over the decades and are now presented in the most varied ways: sound, olfactory, taste and tactile marks; tridimensional marks; holograms; movement or animated marks; colour marks; position marks and gesture marks.

Despite more recent developments, non-traditional marks are not new. One of the first registrations dates back to the 1950s, when National Broadcasting Company, Inc. registered the sound of chimes in the US for broadcasting radio programs.

CURRENT LANDSCAPE | Non-conventional marks exist worldwide, but not all countries allow them to be registered for a simple reason: the legal definition of a mark varies from country to country and in many cases, the definition does not fit or embody the concept of a non-conventional mark.

Another key issue that may hinder the registration of non-conventional signs is finding adequate ways of representing and docketing them, without causing excessive burdens on national offices and allowing the public in general to identify them.

Article 15 of TRIPS establishes that "members *may* [*emphasis added*] require, as a condition of registration, that signs be visually perceptible", so member countries have the choice of including the visual perception of a sign as a requirement for registration in their national laws.

In countries where the law does not require that a sign must be visually perceptible to be registered as a mark, non-traditional marks are usually accepted. Other national laws only register signs that can be represented graphically, and this may be a hindrance to the registration of some types of non-traditional signs, such as olfactory marks. Whenever the possibility of registration does not exist, conflicts involving non-traditional marks can always be solved through unfair competition rules.

A study conducted by the WIPO/SCT between 2006 and 2008, based on answers to a questionnaire received from different countries, showed that: almost all countries accepted the registration of product packaging and that most of them register such signs as three-dimensional marks; about 45% admitted the registration of holograms; and only 60% accepted the registration of a single colour, whereas most jurisdictions accepted the registration of colour combinations. About 50% of the countries accepted the registration of musical sounds which could be represented in different ways: description of the sound in text form; phonograms; or musical score. Less than 30% of the countries allowed the registration of olfactory marks and animated signs, including gestures; taste marks were rarely allowed, but tactile marks could be registered – some bottles are a good example. Position marks were used mainly on clothing to identify the position of a figurative element on a pants pocket or on the sole of footwear. WIPO studies on this matter have stalled since then.

The main problem in relation to non-traditional marks is the lack of standards and uniform criteria for their protection and representation, the lack of technological means to register and store such marks, the difficulty in analysing and solving conflicts between such signs and producing evidence of use in some cases.

FUTURE PERSPECTIVES | Despite the above-mentioned difficulties, the number of registrations for non-traditional marks has grown and is expected to grow even more in many parts of the world. This is a result of new marketing strategies, which promote stronger interaction between the mark and the public, and of legislative changes that adopt a broader trademark concept or interpret existing concepts in a more comprehensive way so as to embody these unique types of marks.

V. DOMAIN NAMES

1. Expansion of the domain name landscape

BACKGROUND | Once connected to the Internet, every computer has a unique identifying Internet Protocol address or an "IP address". Each IP address can be substituted with an easy to remember set of characters or letters that become the domain name. The domain names have become part of addresses of websites or email addresses. The Domain Name System helps make the Internet more accessible by allowing users to type in a domain name instead of an IP address, for example typing 'www.belgium.com' rather than typing 193.191.213.2.

Each domain name is followed by a top-level domain (TLD), i.e. the two or more letters that follow the dot. TLDs – also referred to as 'extensions' – are grouped into two categories: generic top-level

domain (gTLDs) such as .com, .mobi and .info as well as two-letter country code top-level domains (ccTLDs) such as .us, .ca .uk and .eu. identifying a country or territory. There are approximately 250 ccTLDs and 22 gTLDs in existence today.

A registry operator manages the TLD and maintains the registry database including the domain names registered therein. The Internet Corporation for Assigned Names and Numbers (ICANN) is in charge of the DNS. ICANN is a not-for-profit public-benefit corporation formed in September 1998. Prior to ICANN, the DNS was managed by an agency that belongs to the United States government, the Internet Assigned Numbers Authority ("IANA"). ICANN's primary mission is to coordinate, at the highest level, the Internet's systems of unique identifiers globally, and in particular to ensure the stable and secure operation of the Internet's unique identifier systems, which is the DNS.

CURRENT LANDSCAPE | When a party wants to register a domain name in a gTLD, it enters into a registration agreement with an accredited domain name registrar or authorized reseller. For ccTLDs, the registry operator may allow direct registrations via the registry itself. It is the registrar's job to check the availability of a domain name with the relevant registry and then execute the registration transaction with the registry operator. This table illustrates the different parties and their respective roles:

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Holds a domain name	Registrant
Registers domain names	Registrar
Is responsible for a TLD	Registry operator
Is in charge of the DNS	ICANN

Whereas, originally, domain names were only available in Latin script, the domain name system is becoming increasingly international with the introduction of Internationalized Domain Names or IDNs i.e. domain names which contain characters with accents or other marks (é) or characters from non-Latin scripts, such as Arabic or Chinese. Today, some ccTLDs are available in non-Latin script and some gTLDs offer domain names in non-Latin script already.

FUTURE PERSPECTIVES | In 2012, ICANN launched the New gTLD Program. The New gTLD Program is an initiative that enables the introduction of new gTLDs beyond the 22 existing ones, with a view to encouraging competition in the domain name market by allowing entrepreneurs, businesses, governments and communities around the world to apply to operate a gTLD of their choice. Any applicant with the required financial, organizational and technical ability can manage its own TLD "extension". ICANN received 1930 applications for new gTLDs. New gTLDs can be brought under one of the following (non-official) categories: cities; corporations or brands; industries; regional; language and cultural communities; and "true" generic TLDs.

ICANN evaluated the applications, based on the Applicant's background, administrative, operational, technical and financial requirements and consistency. Applications for gTLDs that are confusingly similar to existing TLDs are not allowed. Third parties also have the opportunity to challenge new gTLD applications. If there are multiple applications for identical or confusingly similar gTLDs, ICANN will only delegate one out of these TLDs.

Successful applicants, after having cleared possible objections or contention, are invited to enter into a so-called Registry Agreement with ICANN and to have their technical infrastructure tested, prior to the new gTLD being delegated into the Internet's root zone. Upon the introduction of a new gTLD into the root zone, the successful applicant becomes a registry operator and obtains an exclusive right to operate the applied for gTLD as a "trustee" of the TLD for the global Internet community.

IDNs have been delegated or reserved as country code Top-Level Domains (ccTLDs) in previous processes and can also be delegated as new gTLDs. As a consequence, domain names could contain characters with diacritical marks as required by many European languages, or characters from non-Latin scripts; for example, Arabic or Chinese. IDN top-level domain names offer many new opportunities and benefits for Internet users around the world by allowing them to establish and use top-level domains in their native languages and scripts.

The term of a Registry Agreement of a new gTLD is, in principle, a period of 10 years. The 10-year initial period can be indefinitely renewed for one or more successive terms of 10 years, unless terminated by either party. A TLD cannot be transferred to a third party without ICANN's prior written approval.

ICC CONTRIBUTIONS | ICC has developed an information booklet on the domain name system and the new gTLD program available at www.iccwbo.org/products-and-services/store. ICC also actively participates in ICANN processes representing business on Internet governance issues.

2. Challenges for new gTLD registries and brand holders

BACKGROUND | Abusive domain name registrations and the anonymity that can be maintained on the Internet through the use of privacy services, proxy services and fake identities used to make mechanisms for resolving conflicts between trademark holders and domain name holders cumbersome. When the Internet became more commercial, ICANN adopted the Uniform Domain Name Dispute Resolution Policy (UDRP) proposed by WIPO, which is designed to discourage, and efficiently resolve disputes over the abusive registration and use of trademarks as domain names under gTLDs at a global level. Since the adoption of the UDRP, many registries of ccTLDs and sponsored TLDs have adopted policies similar to the UDRP and implemented additional rights protection mechanisms.

CURRENT LANDSCAPE | Cybersquatting can be fought in court on the basis of existing trademark legislation or specific anti-cybersquatting laws (e.g. the US Anticybersquatting Consumer Protection Act of 1999). However, the vast majority of domain name disputes are handled in alternative dispute resolution (ADR) in accordance with the UDRP or UDRP-inspired policies for ccTLDs or certain gTLDs, such as .biz. Most ADR cases, analysing each case on its particular merits, start from the general principle that domain name registrants need to show that there is no intention to detract from, or make use of, the goodwill associated with a trademark. The general standard of proof is "on balance", also known as the "balance of probabilities" or "preponderance of the evidence" standard. Under this standard, an asserting party would typically need to establish that it is more likely than not that the claimed facts are true.

In ADR cases, rightsholders can obtain the transfer of the domain name, even if the domain name registration details are not accurate. For non-ADR disputes, the accessibility and accuracy of domain name registration details remain of significant concern to right owners. They can rely on information that is made available through WHOIS records, a database that includes current registrant contact details. Agreements between ICANN and both registries and registrars include provisions on the requirements for registration data and accessibility of this data. However, this does not prevent many

WHOIS databases from containing inaccurate data or the use of proxy and privacy services that are often used to shield illegal activity on the Internet.

More recently introduced TLDs adopted additional rights protection mechanisms, such as the eligibility requirements (e.g. .post) or sunrise phases during which trademark holders were able to pre-register or block domain names prior to the general availability of domain name registrations (e.g. .xxx).

FUTURE PERSPECTIVES | With the adoption of the New gTLD Program in 2012, ICANN, in close consultation with the trademark community, has introduced mandatory rights protection mechanisms that must be implemented as a minimum by all registry operators of new gTLDs. ICANN's UDRP must be observed by all new gTLD operators. In addition, ICANN has introduced the Trademark Clearinghouse, the Uniform Rapid Suspension system (URS) and a trademark post-delegation dispute resolution procedure (PDDRP).

- Trademark Clearinghouse: The launch of every gTLD must be preceded by a process whereby brand owners have the opportunity to protect their trademarks at the second level (i.e. as a domain name) in a TLD. A "Trademark Clearinghouse" is expected to facilitate this mandatory sunrise period for domain name allocation within a new gTLD. The Trademark Clearinghouse is a database holding validated trademark information in relation to domain names and provides a centralized location for storage and authentication of trademark information. The Trademark Clearinghouse also supports the Trademark Claims service which is another mandatory process preceding the launch of a new gTLD: it provides notice to potential registrants of existing trademark rights, as well as notice to rightsholders of relevant names.
- URS: The URS complements the Uniform Dispute Resolution Procedure (the UDRP) and provide a faster and less expensive process for resolving clear-cut cases of infringement. The URS provides for the temporary suspension of an abusive domain name.
- PDDRP: A rightsholder can bring a complaint under the PDDRP if it believes a registry operator is actively engaging in or contributing to infringing behaviour.

In 2013, ICANN has also adopted a new Registrar Accreditation Agreement that contains stricter rules for registrars to increase the accuracy of WHOIS records and regulating the use of privacy and proxy services. New gTLD operators will only be allowed to license domain names through registrars (or their resellers) who comply with the terms and conditions of this most recent Registrar Accreditation Agreement.

VI. GEOGRAPHICAL INDICATIONS

BACKGROUND | The strategic importance of geographical indications (GIs) as a valuable marketing tool has become more evident with the escalation in demand for quality and typical products, originating from a particular region.

Although a number of countries have developed effective legislation to protect GIs, there is a lack of harmonization. A single term can be protected in different ways, depending on the country: as a collective mark, a certification mark, an appellation of origin or a GI. In other countries, the system and rules applicable to a GI varies in accordance with the type of product to be protected. In the European Union, for example, there are three different Regulations dealing with foodstuff, wines and spirits. In China, a sui generis system for goods, handicrafts and traditional Chinese medicines coexist, with a trademark system and a sui generis system for agri-products.

In some cases, both trademarks and GIs can be used to protect terms indicating the geographic origin of products. However, generally producers are not aware of the advantages and roles of the two types of rights.

The advantages of trademark protection lies in generally easier and more cost-efficient registration procedures and in its ability to shape consumer perceptions, unlike GIs, which rely on the past experience of consumers. On the other hand, where the link between the geographical name and the product relies on consumers' existing knowledge of agricultural, culinary or cultural traditions, the GI system offers producer groups decided advantages, notably in the breadth of protection.

CURRENT LANDSCAPE | Many countries around the world are actively working within WTO to have the existing protection granted by the TRIPS Agreement to GIs for wines and spirits extended to cover GIs for all products.

Consequently two issues continue to be debated at the WTO under the Doha mandate: the possible extension of the higher level of GI protection currently provided in article 23 of TRIPS for wines and spirits to other products, and a multilateral register for GIs.

On the other hand, negotiation on the proposed changes to the Lisbon System for the protection and international registration of appellations of origin has seen significant progress. The Lisbon Agreement, of 1958, revised in 1967 and 1979, provides for protection of appellations of origin. Due to its limited scope, only 28 countries have joined it, so in 2008 a working group was formed to revise this agreement and make it more attractive and comprehensive. Among the proposals are: the extension of the agreement to cover not only appellations of origin but also GIs; permission for the accession by international organizations, such as the European Union or the African Organization for Intellectual Property (OAPI); and the option of direct filing by beneficiaries, rather than solely through national authorities as is the current practice.

Due to the different treatment that GIs receive all over the world, there are no clear-cut guidelines for parties that seek protection for their traditional products, so advice from experts in each country or region is recommended.

FUTURE PERSPECTIVES | The need for improved protection of goods (and eventually services) other than wines and spirits through GIs tends to increase, especially in developing countries, as they see GIs as means of aggregating value to their goods/services and getting the economic and social benefits that result from it.

Problems from various fronts are emerging for GI holders, foremost among them being counterfeit goods. GI extension and registration would extend legal protection and enable safeguarding rights of GI holders as well as the goods they produce. Another predicament faced by industries using GIs is the introduction of new generic Top-Level Domains. Although no specific criteria or objection procedure has been provided to protect geographical indications when GIs are used as gTLD strings, ICANN's Trademark Clearinghouse provides that "marks protected by statute or treaty in effect at the time the mark is submitted to the Clearinghouse for inclusion" benefit from the same protection as other marks in the TMCH, providing a respite for GI holders.

According to a consensus view among UDRP Panelists, some geographical terms can be protected under the UDRP if the complainant has shown that it has rights in the term and that the term is being used as a trademark for goods or services other than those that are described by or related to the geographical meaning of the term (secondary meaning). As the UDRP will be mandatory for all new gTLDs, GIs holders will benefit from this protection in new gTLDs as well. In what the WTO is signalling as a breakthrough, negotiators are working on a draft text for a Multilateral Register of geographical indications for wines and spirits, or product names derived from places or special characteristics, which would resolve concerns over costs and equal access for all members of the WTO.

Negotiations in multilateral fora such as WIPO and WTO are continuing, although regional and bilateral agreements, which usually include provisions on GIs, have multiplied and moved much faster.

ICC CONTRIBUTIONS | ICC has issued past statements in the context of WTO negotiations on GIs, and continues to participate in the proceedings of the WIPO Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications.

VII. PLANT VARIETY RIGHTS (PVR)

BACKGROUND | According to Article 27 (3) (b) of the TRIPS agreement, all WTO members shall provide for the protection of plant varieties either by patents or by an effective sui generis system, or by any combination thereof. The UPOV Conventions of 1961 and 1978 are hardly effective sui generis systems and have major loopholes including the following:

- They do not oblige countries to protect all genera and species, so that breeders of some species do not have any protection;
- The protection covers only propagating material of the variety, so that harvested material and products directly made from harvested material are without any protection. This is particularly damaging to breeders of vegetatively reproduced ornamentals and fruit, as the main added value of these species is in the harvested material (such as fruits) and the processed material (such as juice); and
- They allow unlimited use of harvested material for further propagation (the so-called "farmers' exemption"), so that particularly breeders of agricultural crops may lose considerable sales.

Plant variety rights (PVR) laws having a lower standard than the UPOV 1991 Convention do not give effective protection for plant varieties and thus do not meet the requirements of Article 27 (3) (b) of the TRIPS agreement. Additionally, in many countries the laws for the enforcement of IPR do not apply equally to PVR, so that even if a PVR title has been granted, its value is limited because the right cannot be enforced.

CURRENT LANDSCAPE | At present, the members of UPOV total 71, of which 51 are party to the 1991 Act. In 2013 Serbia became a member of UPOV and in 2012, France and Panama subscribed to the 1991 Act.

FUTURE PERSPECTIVES | Business should continue to articulate shortcomings in PVR laws, seek changes in such laws to comply with the UPOV 1991 Convention, encourage countries to join UPOV, and increase its efforts to educate governments about the special needs and features of IP protection for plant innovations. Governments of UPOV member countries should continue to encourage countries not members of UPOV to join. Corresponding provisions should be introduced into bilateral agreements. These governments should also stimulate UPOV member countries to update their own laws to UPOV 1991 standards and promote proper enforcement of plant variety rights. Governments should consider WTO dispute settlement procedures for non-compliance with Article 27 (3) (b) of the TRIPS agreement.

VIII. TRADE SECRETS /CONFIDENTIAL BUSINESS INFORMATION

BACKGROUND | Information and knowledge are generally said to be the most valuable assets of a company. Trade secrets and confidential business information as part of this intellectual property are of growing importance, especially with regard to the globalization of trade and interconnected supply chains. Trade secrets encompass various types of business information, whether technical, commercial or financial, which is not known or readily ascertainable by the relevant public and which gives a business a competitive edge (for instance, undisclosed financial results, new product plans, bills of material, price calculation methods, customers' lists and profiles, distribution methods, food and beverage ingredients and chemical formulas, etc.). In general, information is eligible for trade secret protection if it is identified, substantial and secret, as reflected in Article 39 of TRIPS. National legislation often requires, additionally, that trade secrets are effectively secured to enjoy legal protection. Trade secret protection is automatically afforded without registration and can last without limitation in time, generally so long as confidentiality is maintained.

When the trade secret is patentable know-how, the scope of legal protection respectively granted by patent law and trade secret status has to be carefully compared before deciding whether to patent the invention or keep it secret. One of the key factors in this decision is that patents are public and require disclosure of the subject matter, while trade secrets are supposed to be secret. A distinctive feature of a trade secret is the practical impossibility of erasing or overriding the effective transfer of knowledge, once it has happened. This is why, when transferring a trade secret, its holder usually pays great attention to confidentiality provisions and to the efficiency of interim court injunctions that can be obtained locally to prevent unauthorized dissemination.

CURRENT LANDSCAPE | Whereas it is standard business practice to have confidentiality and non-disclosure agreements as well as non-compete agreements in employment contracts, to limit unwanted leaks and unauthorized use of valuable business information, the prevalence of trade secret theft in the supply chain or in collaborations (e.g. joint ventures) is often underestimated.

The laws in place provide for trade secret protection mainly under unfair competition law and rarely address the risks of leaks in the supply chain. However, a significant percentage of trade secret cases are due to misappropriation by suppliers and other business partners²⁰. With regard to the protection of trade secrets against abuse by employees, there are great differences in national legislations and the employer's and authorities' powers to act in a suspected case.

Trade secret protection remains weak in many countries, due partly to the lack of specific protective legislation and partly to the lack of awareness by the judiciary and other administrative bodies. Sanctions against procurement, use or disclosure of a trade secret, through application of the laws on unfair competition or practices – a branch of tort law – are also provided by Article 39 of TRIPS. Violation of a confidentiality undertaking can also be treated as a breach of contract. In limited cases, misappropriation of trade secrets can be a criminal offence, such as theft or business espionage.

The subject matter has been recently studied at several institutions (see for instance the (US) Gonzaga University Law Review study of 2010 on trade secret litigation²¹). The EU is currently discussing a directive to reform and/or harmonize the EU regime on trade secret protection²² and the OECD is undertaking a two-phase project to, firstly, compare the regulatory regimes concerning trade secrets in different jurisdictions, and then to analyse their economic consequences.

²¹ www.law.gonzaga.edu/law-review/2010/01/01/a-statistical-analysis-of-trade-secret-litigation-in-federal-courts/

²⁰ See www.law.gonzaga.edu/law-review/2010/01/01/a-statistical-analysis-of-trade-secret-litigation-in-federal-courts/

²² ec.europa.eu/internal_market/iprenforcement/trade_secrets/index_en.htm

FUTURE PERSPECTIVES | Improved rules and stringent policies are essential but will not solve the problem of global trade secret abuse alone. A realistic risk assessment is necessary to determine the necessary level of information security to protect the trade secrets. In addition to the misappropriation of trade secrets by employees and parties to a cooperation, increasing global sourcing and the expansion of businesses to high-growth markets further the risk of abusive use of trade secrets and confidential business information. Effective protection against misappropriation of trade secrets is therefore important to encourage sharing of knowledge and collaboration.

Businesses need to set up effective information security policies, measures and training programs to effectively secure their intellectual property against the growing risks of trade secret misappropriation. Good information security practice is of utmost importance and a natural focal point for protection measures is the unauthorized disclosure of information by employees. Preventive measures in relation to current and past employees and business partners will help to reduce the misappropriation of trade secrets and confidential business information and allow companies to take full advantage of the global economy. These actions cannot be effectively replaced by legal actions, which usually take place after the fact.

ICC CONTRIBUTIONS | ICC is developing a research paper on trade secrets and their role in the innovative process as part of its research series on the role of intellectual property in innovation (see www.iccwbo.org/Innovation-and-intellectual-property).

IX. OTHER FORMS OF INTELLECTUAL PROPERTY

1. Information products (e.g. databases)

BACKGROUND | The economic importance of databases became obvious in the mid-1990s. They moved from a position of key companions of software products to the status of an economic asset of its own which value has been constantly increasing with the advent of the knowledge society. The TRIPS agreement and, long before it, copyright laws and the Berne Convention had provided copyright protection for compilations. Yet the concern in the 1990s was to address the protection of the investments of makers/producers of databases developed by businesses as an ancillary tool in carrying out their activities or by independent enterprises desirous to exploit these new promising data records.

Apart from the Berne Convention and Article 10 of the TRIPS agreement, there is no international instrument harmonizing legal protection afforded to makers of databases enabling them to prevent unauthorized uses of the contents of their databases. When the WIPO Internet Treaties on Copyright, Performances and Phonograms were adopted in 1996, an international instrument on the protection of non-original databases was proposed as one of the pillars of a future international framework on content protection in the information society. However, nothing further has progressed since.

Most countries rely on unfair competition, business interference, misappropriation and all grounds of tort law. Only the European Union adopted a legal regime of protection of the maker of a data base through the adoption in 1996 of the data base directive which grants the maker a sui generis right to control the uses of the contents of his/her database.

CURRENT LANDSCAPE | The definition of a database, resulting from Article 10 TRIPS and the EU Directive encompasses any and all compilation of materials that are stored in a systematic or methodical way and from which users may conveniently and individually access such materials. Today, databases cover a wide range of products such as directories, libraries, websites, web

platforms, various listings of any kind, image banks, medical files, etc. The increasing growth of information collected, processed and distributed by businesses makes databases sophisticated, as well as strategic, assets.

The EC 1996 directive, adopted to enhance the fight against free-riders and to harmonize the legal regime within the EU confirms the availability of copyright protection for the author of the database, and establishes a sui generis right for the database maker.

According to the directive, legal protection attached to each element incorporated into the database shall remain unaffected (for instance copyright), while the author of the database himself shall enjoy copyright protection provided that, by reason of the selection or arrangements, it is sufficiently original to be qualified as the "author's own intellectual creation".

The sui generis right is accorded if the database maker can demonstrate that he has made a qualitatively and/or quantitatively substantial investment either in the obtention, verification or presentation of the contents of the database.

The concept of "substantial investment" has come under close scrutiny in the European Court of Justice (ECJ). ECJ decisions in four famous cases (involving British Horses Board [BHB] and Fixtures Marketing), gave a restrictive interpretation, thus curtailing the availability and scope of the database sui generis right. Indeed, the ECJ made a distinction between "creating" and "obtaining" the data. In its view, "creating" the data to be gathered in the database does not qualify as a relevant investment for the granting of the sui generis database right. Conversely, obtaining/collecting existing data may qualify as an investment under the Database Directive; yet the investment may not be substantial enough, especially if the collection is made automatically with standard hardware or software, or Internet tools.

The distinction between "creating" and "obtaining" data has thrown some confusion and, for instance, in the case of scientific data, it is not clear if such data should be considered as created or obtained. Other essential concepts in the directive – such as extraction, re-use, qualitative and quantitative parts of the database content, location of re-use for jurisdictional purposes and the author's own intellectual creation – have spurred the submission of other requests for interpretation to the ECJ and provided helpful guidance without exhausting all queries.

FUTURE PERSPECTIVES | In 2005, the European Commission published a report on the economic impact of the Database Directive, stating that the directive had not achieved its aim of stimulating the production of databases. It drew attention to the fact that in the US, where no such sui generis intellectual property right exists, the database industry has grown faster. The report envisaged three options: repealing the directive, amending it or maintaining the status quo. This last option was retained.

Today, many databases are very valuable assets which content can be licensed, transferred, used to conduct studies and to elaborate new products and services. Also, wider access to public databases, known as the Open Data movement, contributes to the dissemination of factual knowledge and indeed spurs creative projects.

The scope of legal protection of databases, whether under the sui generis right in the EU or other legal grounds, remains a subject matter of discussion, essentially because new uses and new tools to collect and exploit data are constantly developing and fuelling the digital economy. For instance: the Big Data phenomenon entails the warehousing of huge data bases in the cloud with kindred issues of access and control; the use of deep links to navigate or to index contents of websites creates some concerns about free-riding and IPR infringement; the protection of personal data which is collected

during almost any digital activity by an individual and centralized in metadatabases has led to the development of privacy by design tools and a continuing search for the proper balance between the interests of individuals and entrepreneurs.

2. Indigenous / community / traditional rights

BACKGROUND | Developed countries have generally embraced intellectual property. Their strong infrastructure and educational resources make them well placed to make use of information of all kinds, to modify resources and to develop new applications. These can be protected by various IPR (patents, designs, copyright, etc.) for the benefit of the innovators. However, not all can so easily profit in this way. Less-developed countries provide some of these resources and information, but often feel they do not receive a just return. Indigenous peoples possess unique information and resources, which in some cases have become public or have been used, in original or modified form, without the permission of the originators or any return to them.

Discontent with this situation has led to proposals for change of two main kinds. It is contended that "traditional knowledge" (TK – for example, of agriculture and medicinal plants) and "traditional cultural expressions" (TCEs – for example, handicrafts, dances, songs and stories) should be under the control of the communities who generate them. It is similarly argued that genetic resources (GR), should be controlled by their owners or custodians, whether countries or indigenous peoples. These proposals are regarded with caution by many, typically in developed countries, who feel they may be unclear, unduly burdensome and difficult to implement.

CURRENT LANDSCAPE | Most progress has been made on genetic resources (GR). These are the subject of the Convention on Biological Diversity (CBD) concluded in 1993. Almost all countries (except the US) are members. The CBD has three objectives: preservation of biological diversity; sustainable use of its components; and equitable sharing of the benefits from such use. Access to genetic resources is rewarded by benefit sharing (ABS). The Nagoya Protocol to the CBD regulates ABS for genetic resources and any associated TK. All research on (non-human) genetic resources and associated TK requires prior permission of the "country of origin" (unless waived), and an agreement as to how benefits from the research will be shared. Member countries must monitor and enforce compliance with the Protocol.

Discussions on an international instrument relating to TK, whether associated with genetic resources or not, and TCEs, have been ongoing in a WIPO Intergovernmental Committee (IGC) since 2000. Progress is slow and much disagreement remains. In September 2014, WIPO will decide whether or when to call a Diplomatic Conference to finalize the instrument.

One issue is a proposal to require patent applicants to disclose the country of origin or source of all GRs or TK mentioned in their patent applications. For GRs particularly, this is resisted as burdensome and generally unhelpful and irrelevant since most such resources are commonplace rather than unique to one location (see section DII, 1, Biological Diversity).

FUTURE PERSPECTIVES | The Nagoya Protocol was agreed in 2010 and will probably come into force (after 50 ratifications) in late 2014 or 2015. In the EU, a draft implementing Regulation is being put into place, seeking to promote and codify "best practice" in the use of GRs. Prospects on TK and TCEs are less clear. Texts for international instruments exist at WIPO, but proposals diverge widely: most fundamentally, as to whether the proposed instruments should be binding or advisory.

ICC CONTRIBUTIONS | ICC has worked actively on ABS, representing business at all relevant meetings of the CBD, and supporting the principles of the Nagoya Protocol while seeking to promote

sensible and practical working arrangements. ICC has been regularly represented at the WIPO discussions on GRTKF, putting forward the views of business.

ICC has resisted the proposal for mandatory disclosure of origin or source of GRs in patent specifications, as unnecessary and unhelpful. ICC also argues for maintaining freedom for all to use information and materials in the public domain.

C. Enforcement of intellectual property rights

I. ENFORCEMENT PRIORITIES

1. Litigating intellectual property rights

BACKGROUND | As a general rule, intellectual property rights (IPR) are not only granted but also determined in their scope, enforcement and validity by national authorities within a particular territory. However, even under such parameters, differences in the way in which laws may be applied may exist between courts within a particular jurisdiction or supranational schemes such as the EU.

These inconsistencies – including differences in the rules applied to evidence and claim construction; differences in the cost, length, predictability and outcome of litigation; differences in the rules applied to the recovery of damages; the availability of interlocutory relief; and the sanctity or discoverability of communications between clients and their legal advisors - have encouraged situations such as forum shopping by litigants seeking the most favourable jurisdiction in which to have their interests protected, which has led in some instances to uncertainty.

CURRENT LANDSCAPE | Important worldwide efforts are being made in order to continue the underpinning harmonization efforts such as TRIPS, which provides for minimum standards related not only to the protection of IPR but also their effective enforcement by means of border measures, civil, administrative and criminal actions and provisional measures.

Of course, businesses not only seek to enforce IPR but also defend their activities against IP claims of all types, including patent, copyright and trademark claims. Since IP protection is afforded on a territory-by-territory basis, businesses active globally may be the target of enforcement activities across jurisdictions which apply differing standards of enforcement of IPR, with the result that activities which are defensible in one jurisdiction may not be in another. An example of this phenomenon is evident in the rise of non-practicing entities asserting patents in the United States which has raised the risks of inconsistent outcomes in different jurisdictions.

As mentioned above, while harmonization efforts continue to be pursued to enhance uniformity and predictability in the area of IP protection and enforcement, businesses are also aware that as a general matter, countries' laws will differ one from the other, and will need to adapt their activities accordingly. Different trademark use requirements in various countries create potential differences for enforcement against new entrants who may be the first to use a brand. In copyright law, differences in rules and the way they are applied (e.g., with respect to exceptions and safe harbours, moral rights and publicity rights) may pose legal and operational challenges for businesses operating in different jurisdictions.

FUTURE PERSPECTIVES | It is foreseeable and advisable for businesses and national decision-makers to continue supporting harmonization efforts both in the international and the regional arena. It is also necessary for both businesses and national decision-makers to pay special attention and direct their efforts to strengthen the harmonization of standards that will allow the application of effective solutions to currently existing problems such as counterfeiting and piracy. Such efforts should also take into consideration the existing challenges arising from new forms of intellectual property infringements and the particular challenges arising from, for example, those infringements related or derived from the use of the Internet, as well as those related to non-traditional IPR such as folklore and traditional knowledge.

Despite the efforts made in some jurisdictions such as the EU by means of the "Rome I" and "Rome II" regulations and other equivalent pieces of law, it remains important for governments and businesses to promote the execution and ratification of the Convention on Choice of Court Agreements, which will likely simplify the effective enforcement of IPR worldwide.

Other efforts should also include initiatives to harmonize court procedures and recognition of judgments, and to develop current principles in that area, as well as ensure the existence and effectiveness of interim remedies to provide emergency IP protection.

ICC CONTRIBUTIONS | ICC continues to provide business expertise on the issues arising from these harmonization efforts seeking always to promote competitiveness and social and economic welfare.

2. Enforcement on the Internet

BACKGROUND | While the Internet has created tremendous distribution possibilities for rightsholders, the ubiquity of the Internet and the ease and speed of reproduction and transmission of digital content have made it difficult for rightsholders to control the unauthorized exploitation of their rights.

A holistic approach to address the benefits and the challenges of the Internet include consumer education, availability of marketable legitimate offers and effective enforcement. Different business models are being tested to expand and increase the attractiveness of legitimate online services which could help encourage consumers to use legal avenues to access content online and reduce the rate of infringement. In the meantime, the damages resulting from unauthorized distribution increase considerably the risks and costs associated with the roll-out of new legitimate services; a situation that ultimately hinders economic development, social welfare and consumer satisfaction.

CURRENT LANDSCAPE | New technologies and increased access to the Internet and communication networks around the world come along with increased opportunities to infringe IPR. Under this particular scenario, it is clear that enforcing IPR over the Internet has become a critical topic in the intellectual property arena. However, the very nature of the Internet brings along complex jurisdiction and enforcement issues as intellectual property owners might be required to pursue actions in any country where, arguably, an infringement to their IPR took place. While information and communication technologies (ICT) afford new tools for detection of online infringements, the very nature of Internet activity poses important evidence gathering issues as well as real problems related to the identification and ultimate location of the alleged infringer. The contribution of intermediaries in the fight against illegal file sharing must, of course, comply in all applicable cases with the presumption of innocence and the right to a fair trial, as well as meet relevant due process requirements for the disclosure of confidential information, including communications.

Governments, rightsholders and intermediaries around the world are considering how to provide for better regulations and effective enforcement of IPR over the Internet while respecting other fundamental rights (presumption of innocence, fair trial, privacy, confidentiality of communications and property rights). There are a host of different approaches being employed including litigation, injunctive relief and cooperation with intermediaries:

a) Litigation: Litigation against commercial-scale piracy services continues in jurisdictions such as the United States. Countries such as Canada that lack developed case law in this area have expressly targeted "enablers" of wide scale infringement in statutory law.

- b) Injunctive relief. Courts in over a dozen countries have granted injunctive relief by which judicial authorities have ordered that sites dedicated to infringing activities be blocked by Internet service providers (ISPs).
- c) Regulators in certain jurisdictions have required economic agents to implement blocking provisions, although they vary in scope and some are being judicially reviewed. The conditions required for delivering such relief are evolving in the EU. According to latest case law, any limitation on the exercise of fundamental rights needs to be provided for by a law having the necessary degree of detail in order to be proportionate.
- d) Cooperation with intermediaries (ISPs, payment processors, advertisers and search engines):
 - i) Copyright alert systems: Countries such as Chile, France, Korea and Taiwan have implemented laws and regulations requiring ISP's to notify subscribers when their account is used to distribute infringing content and warn them of consequences. According to industry reports, such measures have proved, in some cases, to be effective.²³ In other countries such as the United States, such measures have been implemented by voluntary agreement between rightsholder industries and intermediaries as consumer education initiatives.
 - ii) Payment processors: Payment providers have cooperated with rightsholders to ensure that their services are not present on pirate sites.
 - iii) Advertising: Rightsholder industries have worked with advertisers and advertising intermediaries to work to prevent advertisements from appearing on pirate sites. In December 2013, the Digital Trade Standards Group in the UK launched a self-regulatory regime to address concerns by advertisers and rightsholders. Self-regulatory regimes are being considered in other countries.
 - iv) Search: There remains an ongoing debate as to the role of search engines in combating piracy. Search engines respond to takedown requests by rightsholders. Rightsholders also continue to seek de-indexing of sites dedicated to infringement. Search engines have agreed voluntarily to alter their algorithm to downgrade sites dedicated to infringement by taking into consideration the number of takedown requests received for a site. The effectiveness of deprioritization is being debated.

In addition, rightsholders have filed, and intermediaries have processed, tens of millions of takedown requests to require the removal of links to infringing material online using statutory takedown provisions and mechanisms provided by intermediaries, including search engines and providers hosting third-party content. It should be noted that such takedown mechanisms generally do not require such intermediaries to prevent the reposting of removed material. This creates a scenario where rightsholders must request removal of new links to or postings of the same unauthorized content. In the United States and the EU, the law does not impose upon certain neutral intermediaries any general obligation to monitor their networks for infringement, or actively seek out instances of infringement.

Other problems worth mentioning that arise from the enforcement of IPR in the digital environment are those related to electronic documents needed or discoverable in litigation, especially as to the admissibility of digital evidence; serious questions are being raised in connection with the

²³ Use of unlicensed peer-to-peer networks in France dropped by 20% following implementation of the law. In New Zealand, P2P levels fell 13% following implementation – IFPI, Recording Industry in Numbers 2013.

authentication of identity, content, time, confidentiality and archival policies including deleted files. Statutory damages can be awarded in certain countries such as the US, where it is one of the topics under discussion in the recent US Patent Office Green Paper on Copyright Policy, Creativity and Innovation in the Digital Economy.

The introduction of new generic Top Level Domains (gTLDs) by the Internet Corporation for Assigned Names and Numbers (ICANN), as predicted, has exacerbated the diverse and current issues addressed above.

Likewise, the use of trademarks on the Internet raises many issues that are being resolved as the law develops. However, it is of concern that, since national approaches vary, the outcome of litigation also varies. One well-known category of issues relates to conflicts arising from contested registrations of domain names identical or similar to trademarks. A second category of issues relates to new uses of trademarks on the Internet, in applications for mobile devices and in social networks in many forms that are not all clearly perceptible. Debates also arise from (i) the use of trademarks for advertising purposes, for instance, as keywords to trigger ads alongside "natural" search engine results for the keyword term or for pop-up displays on computer screens; (ii) the scope of permitted trademark parody, as exercise of freedom of speech, on non-commercial websites including blogs; and (iii) the linking and framing of webpages which can also be used for phishing (i.e. basically setting up bogus pages to steal users' information).

These uses of trademarks on the Internet raise many issues of how an act of trademark infringement should be characterized, which law(s) should be applicable to trademark-related transactions and such infringements, and in which jurisdictions actions can be brought. Despite these uncertainties, many brand owners use the Internet as a distribution channel for their products and as a tool to manage relationships with customers. The rapid growth of e-commerce and social media platforms has highlighted an issue requiring clarification as to the scope of the responsibilities of web intermediaries and the scope of protection for brand owners in relation to unauthorized sales on the Internet.

FUTURE PERSPECTIVES | Although it seems clear that businesses, governments and private organizations will continue to promote the enactment of increasingly effective means to protect their IPR in the digital arena, the enforcement of such rights in this context needs not only to adopt to evolving technologies, but also to find the right balance between the protection of different fundamental rights. This has led to a fair share of interdisciplinary concerns and disputes which will likely continue to be discussed over the following years. One example is the interaction between IPR and data protection regulations when disclosure of personal data is requested for enforcement purposes.

On the other hand, despite business support for ICANN's Uniform Dispute Resolution Policy (UDRP), it is foreseeable that, in the years to come, there will be a continued call for better consistency of the decisions rendered while applying this policy, as well as efforts aimed to improve the operation of the UDRP or like procedures for blatant violations of IPR over the Internet. Other efforts may be directed to request ICANN to allow for reasonable access, through an accurate WHOIS database, to information sufficient to identify alleged infringers. However, as noted above, such discussion will not be indifferent to meaningful opposition.

Enforcement efforts can be expected to continue to focus on cooperation between governments, rightsholder industries and intermediaries – including intermediary services such as payment providers and advertisers.

Rightsholder industries will continue to work to develop and implement, in cooperation with intermediaries, copyright alert programs in a manner that educates consumers about illegal activities and directs them to legitimate services, as they have endeavoured to do through the Copyright Alert System in cooperation with participating ISPs in the United States, although the system may not be applicable in every jurisdiction.

Governments around the world should ensure effective and meaningful implementation of the 1996 WIPO Treaties in their respective jurisdictions and provide for the enactment and development of appropriate legal frameworks for effective technological protection measures and legal remedies against circumvention, related activities and devices.

Finally, following its in-depth study of the use of trademarks on the Internet, WIPO produced a Joint Recommendation Concerning Provisions on the Protection of Marks and Other Industrial Property Rights in Signs on the Internet in 2001. Governments should integrate its provisions into national law and promote open discussions about how to handle the new situations trademark owners face in the digital environment.

II. RESOLUTION OF INTELLECTUAL PROPERTY DISPUTES BY ARBITRATION OR MEDIATION

With the expansion of international trade in recent years, there has been a proliferation of disputes involving a variety of intellectual property rights (IPR). In particular, there has been an increase in technology-related agreements, such as licences, non-disclosure agreements (NDA) and research and development (R&D) agreements. These agreements may give rise to disputes, relating to IPR such as patents, know-how and copyrights. Important aspects of IP disputes may relate to damages, royalties, infringement of IPR, issues of validity and ownership or competition matters. While intellectual property disputes are not fundamentally different from other types of commercial disputes, disputes arising out of technology-related agreements can be complicated, requiring flexible procedures and expert knowledge. Both arbitration and mediation offer advantages that make these mechanisms particularly appropriate for the resolution of intellectual property disputes.

1. Arbitration

BACKGROUND | Disputes concerning intellectual property typically involve the ownership, validity, enforcement, scope, infringement or misappropriation of an intellectual property right.

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There are many situations where arbitration may be appropriate, such as disputes involving intellectual property licences, agreements for the transfer of intellectual property (e.g. in the context of a business or company acquisition) or agreements pursuant to which intellectual property is developed (e.g. research or employment contracts).

Arbitration has notably four fundamental features: (i) it is a private mechanism for dispute resolution; (ii) it is an alternative to national courts; (iii) it is selected and controlled by the parties; and, (iv) it is the final and binding determination by an impartial tribunal of the parties' rights and obligations.

Parties choose to go to arbitration rather than to a national court for various reasons. First, due to its international nature, arbitration provides the parties with the possibility of choosing a neutral forum as well as the rules of procedure and the language to be applied by the tribunal. Second, as the arbitration award is final and binding, there should be no appeals and the award will be directly

enforceable under the New York Convention in over 140 countries. The mechanisms for enforcing arbitration awards are more sophisticated and internationally regulated than the enforcement of national court judgments. Third, the autonomous nature of the arbitration process allows the parties and arbitrators the flexibility to freely determine the procedure best suited for the particular case, without being bound to detailed and rigid national court procedures. Fourth, the parties may select arbitrators with expert knowledge and from certain legal backgrounds. Another advantage of arbitration is the possibility of keeping the arbitration and the award private and confidential, which is particularly pertinent for disputes involving secret intellectual property processes and rights.

Parties usually agree to arbitration before a dispute arises, by including an arbitration clause in their main substantive contract, e.g. the licence or the R&D agreement. Alternatively, parties can agree to submit to arbitration after a dispute arises.

In either case, there are three important factors which the parties to an IP contract need to carefully consider when drafting an arbitration clause or submitting to arbitration: (i) availability of injunctive interim or conservatory relief; (ii) confidentiality of the arbitration proceedings; and (iii) the possibility of adopting expedited arbitration procedures.

CURRENT LANDSCAPE | A comprehensive framework for the resolution of commercial (including intellectual) property disputes is already in place. First and foremost, the New York Convention for the Recognition and Enforcement of Foreign Arbitral Awards ensures that arbitration awards will be directly enforceable in over 147 arbitration laws; more than 45 countries have adopted the UNICTRAL Model Law in International Arbitration. Many other countries, such as France, the US and Switzerland also have arbitration-friendly legislation, as well as case law. Thirdly, a great variety of non-state institutions, chief among which the ICC International Court of Arbitration and mediation. Certain organizations have created specific intellectual property arbitration procedures and have established lists of potential arbitrators. Finally, professional organizations, such as the International Bar Association, publish non-binding guidelines and best practices which provide very useful guidance on a number of areas relating to arbitration proceedings, such as the taking of evidence (see the IBA Rules on the Taking of Evidence in International Commercial Arbitration) or the appropriate conduct of arbitrators (see the IBA Guidelines on Conflicts of Interest in International Arbitration).

This comprehensive legal framework has fostered a number of positive developments in out-of-court dispute resolution in the last 20 years. One of the main achievements, with significant implications for intellectual property transactions, has been the fact that a wide range of IP-related disputes is now considered "arbitrable", i.e. capable of being decided by arbitral tribunals. This is particularly the case with IP disputes relating to copyrights and know-how, as well as some types of patent disputes relating to infringement and royalties.

Despite the fact that many more disputes are now capable of being submitted to arbitration, some intellectual property disputes cannot be legally resolved by arbitration because they relate to a subject matter that cannot be removed from the normal national court jurisdiction. This is because, in most countries, the existence of an intellectual property right (with the exception of copyright) requires intellectual property owners to register or apply for the right with a governmental or inter-governmental agency that has the power to grant, amend or revoke the right and determine its scope. Therefore, disputes directly affecting the existence or validity of an intellectual property right are not arbitrable. This is most obviously the case with the validity of a patent that is issued by a patent office, the only competent authority outside a court in which to challenge the patent's validity.

In addition to the above, two further recent developments require special mention. First, the new French Arbitration Law, introduced in 2011 with an aim to consolidate France's reputation as an

arbitration-friendly jurisdiction. Secondly, the new ICC Arbitration Rules, applicable to all ICC arbitrations commenced from 1 January 2012. The new ICC Arbitration Rules have introduced a number of amendments that may have implications for the resolution of IP disputes. For example, they include new provisions for multiparty proceedings, and provide for emergency arbitrators that may grant urgent interim or conservatory relief.

FUTURE PERSPECTIVES | Businesses should take the following points into account when considering arbitration of intellectual property disputes:

- To ensure that injunctive interim or conservatory relief is available even before arbitration commences. To that effect, parties should consider choosing arbitration rules that provide for interim measure to be granted by the arbitral tribunal but also for emergency relief even before the constitution of the tribunal (see for example the 2012 ICC Rules providing for emergency tribunals). In any event, the support of national courts might be necessary in extreme cases, or where parties are unwilling to recognize the authority of the arbitral tribunal;
- To ensure that the arbitration proceedings and the final award will be confidential. The current trend in national laws is to omit references in confidentiality. Although, secrecy provisions in the underlying substantive contract will usually hold well for the arbitration procedure, parties should include an express provision of confidentiality covering the arbitration proceedings, arbitration-related documents and arbitral award. Alternatively, parties either agree on confidentiality in the terms of the reference or request the tribunal to grant a procedural order for confidentiality. The 2012 ICC Arbitration Rules contain a new provision explicitly allowing for "confidentiality orders";
- Where time and costs is of the essence, parties may consider using expedited arbitration proceedings (available under the ICC Arbitration Rules);
- To facilitate enforcement and to help to obviate the problems created by arbitrability, it may be useful to add a clause whereby the parties agree to enforcement;
- Parties should be careful to expressly select a country which has a legal framework that is supportive of the arbitration and is party to the New York Convention on the Recognition and Enforcement of Arbitral Awards as the place of arbitration;
- Where parties consider expertise in intellectual property issues to be essential, they should provide in the dispute resolution provision for the appointment of a neutral expert, such as those available under the ICC rules for expertise, and/or that the arbitrators have suitable qualifications and/or experience; and
- Complex IP disputes usually require extensive evidentiary processes. In such cases, parties and tribunals are advised to consider adopting the 2010 IBA Rules on the taking of evidence.

While intellectual property disputes are arbitrable in most countries today, some countries are more liberal than others. Switzerland and the United States accept the arbitrability of almost all intellectual property disputes. In most other countries, a distinction is drawn between IPR which have to be registered (e.g. patents, designs and trademarks) and those that exist independently of any national or international registration (e.g. copyrights, know-how and trade secrets). IPR belonging to the former category may be arbitrable, but an award rendered may not affect the rights of third parties. IPR that are not subject to any registration are freely arbitrable.

The reduction in the number of countries applying a strict or even restrictive approach to arbitrability is to be welcomed and encouraged. Continuing support from international institutions with specialist knowledge including UNCITRAL with its Model Law, ICC, WIPO and WTO, will greatly facilitate the final resolution of this problem.

Governments should take the following actions:

- Ratify the New York Convention on Recognition and Enforcement of Arbitral Awards 1958. Over 140 countries have already done so and efforts should be made to persuade the remaining states to ratify; and
- Adopt the UNCITRAL Model Law on International Commercial Arbitration 1985 (with the 2006 amendments) or a modern arbitration law. The UNCITRAL Model Law has already been adopted as the basis of national arbitration law in more than 60 countries.

2. Mediation

BACKGROUND | Mediation may be defined as a voluntary and confidential process whereby a mediator (i.e. a neutral third party) assists the parties in finding an interest-based settlement to their dispute without imposing a solution. The mediator assists the parties in isolating points of agreement and disagreement, exploring alternative solutions and considering compromises in order to find a mutually satisfactory settlement of their dispute. Mediators cannot make binding adjudicatory decisions. They assist the parties in reaching a settlement that is, following the parties' agreement, contractually binding.

The strength of mediation is that it allows the parties to negotiate the resolution of their dispute, rather than be the recipients of a third party's solution. The parties may negotiate a solution based on their current and future needs and business interests such as financial considerations, future business relations, competition, reputation and market value. The mediator, unlike a judge or arbitrator, is not limited to applying a certain set of rules to past facts in order to determine the legal situation between the parties. Other advantages are that mediation is confidential and that the mediator may assist the parties to achieve any type of solution that they consider acceptable, whereas arbitrators and judges are limited to remedies available at law.

Like in arbitration, the agreement to commence a mediation must be taken consensually by the parties. A dispute resolution clause in the parties' contract providing for mediation is the easiest way to ensure that the parties will try to amicably settle their dispute. However, parties might also decide to attempt a settlement by mediation when the dispute has already arisen, or even when they have already commenced other dispute resolution procedures such as arbitration or litigation. The high success rate of mediations indicates that the attempt to settle the dispute by mediation can be successful at any state of the proceedings.

Further, as the purpose of mediation is the negotiation of a settlement, situations where no negotiation and cooperation between the parties is possible (e.g. cases of deliberate counterfeiting or piracy) are inappropriate for mediation.

On the other hand, mediation of intellectual property disputes may be particularly appropriate in situations where the following is important: the maintenance of confidentiality of the dispute or facts pertinent to the parties, the intellectual property right or the parties' relationship; or the preservation or development of business relationships between the parties.

The parties to the mediation will in most cases execute directly the outcome of the mediation because they have agreed to it between themselves, without further need for recognition and exequatur procedures. This feature is of great advantage in an IP international dispute where several countries may be involved.

CURRENT LANDSCAPE | Mediation's relevance and acceptance as an effective dispute resolution method has significantly grown in the last 20 years. Currently, courts in most countries will make sure to give effect to a mediation clause and will uphold the parties' final agreement ensuing from a successful mediation. Further, a number of institutional rules on mediation, such as the ICC ADR Rules, are available and well-suited to intellectual property disputes.

Awareness of mediation has also spread rapidly among business parties, due to many mediation conferences such as the annual ICC International Mediation Conference, which is tailored to the needs of corporations. As a result, commercial parties have steadily but surely been trusting mediation for the resolution of the commercial disputes, including IP disputes.

FUTURE PERSPECTIVES | The Federal Courts of the US and the German Patent Court have both recently set up mediation schemes and judges in the US are increasingly referring parties in patent disputes to mediation before taking a decision on such cases. Evidence for the growing support for mediation can be found in a number of legislative initiatives in different countries and regions; the most important one is the EU Directive on Certain Aspects of Mediation in Civil and Commercial Matters, which was to be implemented by all Member States by May 2011. The European Mediation Directive is an ambitious effort to facilitate access to mediation for the resolution of cross-border commercial disputes. The directive's primary goals are to enhance the enforceability of the agreements resulting from mediation, and further protect confidentiality of the mediation process. Additionally, the EU Mediation Directive encourages Member States to ensure the quality of mediation through a code of conduct and training of mediators.

III. COUNTERFEITING AND PIRACY

BACKGROUND | While it is difficult to precisely quantify the impact of counterfeiting and piracy, due to the illicit nature of these activities and differences on the appropriate methodologies, estimates from the OECD's 2009 update of its 2008 study suggest that counterfeit and pirated goods in international trade grew steadily over the period 2000-2007 and could amount to up to US\$250 billion in 2007, representing 1.95% of world trade²⁴.

Many industries from a wide range of sectors – ranging from food and drink, pharmaceuticals, electronics and textiles to software and audiovisual industries – feel a drain from piracy and counterfeiting. Companies view such activities as distorting marketplace competition by making it difficult for them to "compete" against those who take a free-ride on their work, without contributing to costs associated with research, product development and marketing.

Different aspects of these activities also have broader consequences for governments and society. Trade in counterfeits of products such as medicines, toys, car or airplane parts, heightens risks to public health and safety as counterfeits are not subject to the same quality controls and distribution channels, as are genuine products. Counterfeiting and piracy on a commercial scale have also been

²⁴ "Magnitude of counterfeiting and piracy of tangible products: an update", OECD, November 2009 www.oecd.org/industry/ind/44088872.pdf

shown to be linked to organized crime²⁵, and black market activity in counterfeit or pirated products deprives governments of substantial tax revenues.

Piracy and counterfeiting activities in a country can affect both local as well as international brands and products, with implications for industries and public welfare both inside and outside the country. When making decisions on investment in production or technology sharing in a particular location, businesses will often take into account the likelihood of intellectual property infringement and the efficacy of measures for redress or prevention.

CURRENT LANDSCAPE | Industries based on intellectual property (patent, trademark, copyright and trade secrets) have been proactively working to combat piracy and counterfeiting in all its forms. Many sectors have been working closely with law enforcement agencies to investigate and prosecute criminal infringements of intellectual property.

Collaboration between different stakeholders is developing to create, satisfy and protect legitimate expectations, to foster economic growth (particularly jobs), creativity, innovation and competition, as well as to address the issues of counterfeiting and piracy and respect for the law. In addition, several sectors are actively educating governments and the public regarding the roles of all types of businesses – including manufacturers, distributors, publishers and a variety of intermediaries – in fostering and protecting the conditions that promote intellectual property and information-based economic growth. Many stakeholders are educating other stakeholders on how they can best help collaborative efforts to minimize counterfeiting and piracy and promote economic growth.

Businesses are also participating in a wide variety of forums to assess both the consequences of counterfeiting and piracy and the best practices for minimizing them. Such efforts must include all stakeholders and must demonstrate respect for and attention to legitimate interests, rights and responsibilities of all participants in the networked economy, including businesses, governments and citizens.

FUTURE PERSPECTIVES | Within industry, continuing dialogue between actors involved in the intellectual property value and distribution chains will facilitate the development of solutions and best practices acceptable to different business stakeholders.

Businesses affected by counterfeiting and piracy are also continuing to work and share information with government agencies and institutions involved in fighting illicit trade and organized crime.

New technologies, such as 3D printing and new forms of dissemination of digitalized data, will bring new challenges for businesses in controlling the unauthorized production and distribution of their products and services and use of their brands. Some businesses are already reviewing the implications of such new technologies on their business strategies and practices.

As systematic data is difficult to obtain on counterfeiting and piracy, because of its generally covert nature, more work on developing tools to gather and analyse data on counterfeiting and piracy across

²⁵ INTERPOL has made the following statement regarding the relationship of organized crime to counterfeiting, piracy and other activities such as smuggling and tax evasion, all of which it terms "trafficking in illicit goods": "All levels of society are impacted by trafficking in illicit goods. For example, counterfeiting harms businesses which produce and sell legitimate products, governments lose tax revenue from products manufactured or sold on the black market, and consumers are at risk from substandard products. [...] A clear link has been established between the trafficking of illicit goods and transnational organized crime. Criminal organizations are attracted by the lucrative profits involved in trading counterfeit or fake goods, or in trading legitimate goods through illicit channels. The criminals involved manufacture and trade illicit goods on a regional and increasingly global scale. Organized crime networks exploit new technology, differences among national regulatory regimes and links between the global economic, finance and transportation systems for their own gain. They use the profits to fund other criminal activities such as drug trafficking, people smuggling and robbery."

sectors would help increase understanding of the phenomenon and help policy makers take better targeted measures in this area.

ICC CONTRIBUTIONS | ICC's Business Action to Stop Counterfeiting and Piracy (BASCAP) is a member driven initiative that provides policy and legislative recommendations and advocates for IPR. BASCAP is a founding partner of the annual Global Congress on Combating Counterfeiting and Piracy which brings together business and intergovernmental organizations such as INTERPOL, the World Intellectual Property Organization and the World Customs Organization. The group urges governments to take measures to tackle counterfeiting and piracy by producing country and regional specific IP recommendations and initiates dialogues with governments. To date, work has commenced in East Africa, Canada Turkey, Russia, India and Ukraine. Recommendations are also transmitted to the G8, European Observatory and other fora.

BASCAP works to improve enforcement in key areas:

- Value of IP Research and reports are available on the positive economic benefits of IPR
- Free Trade Zones BASCAP offers training to Customs officials at the WCO
- Goods in Transit BASCAP submits position papers on EU legislation
- Proceeds of Crime BASCAP implements report recommendations in cooperation with UNICRI
- Plain packaging The group champions the removal of plain packaging legislation which could pose health and safety consequences for consumers
- Consumer awareness The group is responsible for "Fakes Cost More, I Buy Real" consumer advocacy initiative, which offers campaign materials in 26 languages.

D. Interaction between intellectual property and other policy areas

I. SUSTAINABLE ECONOMIC DEVELOPMENT

BACKGROUND | IPR-enabled private sector innovation and technology will be a key to sustainable development in posterity. It was therefore significant that the 2012 UN Conference on Sustainable Development (CSD) in Rio de Janeiro – the pre-eminent global forum on sustainability – found the developing countries block advocating for systemic change in IPR. This was particularly significant, as many of the least-developed countries (LDCs) are sensitive to environmental issues as a result of forces such as global climate change, which makes private sector "green technology" key to their survival and the "greening" of the global economy in general.

The contemporary IPR system clearly works on the economic dimension of sustainability and holds much promise on the environmental dimension of sustainability but now there is clearly a challenge on the social dimension to ensure the IPR system is within the reach of many who for whom benefit sharing of the fruits of IPR will ensure survival, and thus ensure a sustainable future for both IPR and its holders.

CURRENT LANDSCAPE | The international IP regime faces multifaceted challenges that include the following:

- Complex IPR systems can be conceptually difficult to understand, particularly in economic systems that are not rooted in private capital. Cultures in which the role of traditional knowledge retains prominence are a particular contrast.
- Fundamentally new technologies such as genetic engineering have added economic value to resources previously openly shared and in so doing, raised hugely complex questions of "ownership" never envisioned.
- NGOs have emerged as a significant force in public policy, whether challenging IPR protocols in medicine, or pressing to access IPR-protected information in pushing quasi-regulatory environmental roles.
- The dramatically rapid expansion of global markets has found some governments struggling to adapt, and spawned exploitation of weak IPR protections to secure competitive gain.

The potential developmental benefits for enabling an IPR system engaged with the global market place are significant. The dramatic globalization of markets that has occurred over the past 20 years has fuelled a huge expansion of private investment that has spurred economic development. Countless innovative and industrious firms based all around the globe – small and large alike – produce innovative products which are assembled and manufactured in numerous countries using components created through industrious and ingenious processes in still more countries, before being distributed by firms based in still other countries to markets all around the world. This creates value chains that generate astounding flows of capital, and one of the elements uniting them is IPR.

FUTURE PERSPECTIVES | Developing nations that choose to enable their business community to engage in the global marketplace necessarily have to take on the challenges. To secure the benefits from the international marketplace, a nation and its economic participants must take steps to enable that marketplace. Respecting and facilitating global IPR protocols is one of the most important

"enabling" conditions of participation. It must be noted that merely putting in place an IPR system will neither stimulate nor ensure the sharing of benefits of innovation. IPR systems are necessary but far from sufficient in delivering economic development. They depend upon strong and stable governance, the rule of law and a stable economic structure that supports private initiative.

Businesses will continue to create complex supply and distribution chains that integrate internationally. Importantly, expectations of respect for IPR will continue – both for value chain links and for governments – and strong IPR structures will continue to help local business innovators to better qualify for global partnering and to better compete in global markets.

The negation of strong IPR protection and enforcement is likely to limit investment and partnerships. This will include limiting exposure of IPR-sensitive processes or products in countries with weaker IP systems, and largely confining full investment of innovative processes, technologies and products to those countries that will fully respect their IPR-sensitive character.

Businesses will continue an active role in intergovernmental processes such as WIPO, WTO and various United Nations Conference on Sustainable Development (UNCSD) related fora. In that regard, businesses should continue to respect the decisions of intergovernmental fora regarding WTO TRIPS and unique LDC needs, and accommodate such programs where LDC governments are upholding their respective responsibilities under the decisions. Likewise, both WIPO and WTO should take very seriously the challenge of delivering responsible IPR-related practices in a manner that is more consistently responsive to the social dimension of sustainability needs.

Additionally, business must work with the UNCSD process triggered by paragraph 273 of the Rio output document, "The Future We Want". That paragraph, calling for a new "facilitation mechanism" for technology transfer, reflected the compromise over IPR, and has already spawned a Secretary General's Report and a series of workshops held at the UN in New York (rather than at WIPO or WTO). Business must work with those intergovernmental forums to ensure that these largely environment-driven processes do not inadvertently compromise fundamental elements of the contemporary IPR process.

All governments should consciously aim their development policies to put in place IPR and larger governance/economic structures necessary to support their business innovators in domestic and global markets, and invite full partnerships within the global private sector. For LDCs and emerging economies generally, governments should actively and strategically work with available intergovernmental, business and NGO support structures and programs to build and strengthen their IPR systems and the larger governance and economic structures necessary for them to bear fruit.

The challenge of fashioning policy that does justice to the economic, environmental and social dimension of sustainability is not simple. The intergovernmental forums must work to ensure that IPR-related policies do justice to the social dimension symbolized by the plight of the LDCs. Governments must refrain from excesses in use of compulsory licensing and similar TRIPS-enabled measures, recognizing that extension beyond the prescribed limits of such mechanisms risks discouraging further investment and undermining the economic dimension so important to those countries.

In sum, governments and intergovernmental forums of all types – economic, social and environmental – should integrate and fully respect global IPR protocols as strategically important to sustainable development. As long as they are built upon foundations of rules-based governance and consistent and sound economic policy, support programs aimed at broadening awareness of and putting in place institutional support for globally recognized IPR protocols, among intergovernmental programs and at the national level, will lead to more sustainable outcomes.

ICC CONTRIBUTIONS | ICC has a multi-pronged approach in its action to ensure proper use of IPR for sustainable economic development by way of actively contributing to discussions, organizing events, participating in seminars and bringing out publications. Importantly, this also includes active leadership of global business & industry in the major intergovernmental forums shaping not only the future of global IPR protocols, such as World Intellectual Property Organization (WIPO) and World Trade Organization (WTO), but also those shaping the future of the environmental dimension and sustainable development generally, such as United Nations Environment Programme (UNEP), the United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD) and the UN (United Nations) General Assembly and its forums. The challenge of integrating global business interests across such diverse platforms is significant, but so, too, is the challenge of integrating the economic, social and environmental dimensions of development. It is clear that business needs to play a central role as that future unfolds.

II. ENVIRONMENTAL PROTECTION

1. Biological diversity

BACKGROUND | Increasingly, the world community acknowledges the importance of the natural environment, for many reasons, both moral and economic. The Convention on Biological Diversity (CBD) is one consequence. The objects of this treaty are to conserve biodiversity, to promote its sustainable use, and to share fairly the benefits of this use. The CBD recognizes the sovereignty of member countries over genetic resources found within their boundaries, and sets out principles upon which access to genetic resources is to be provided.

A total of 193 countries and the European Union are now parties to the CBD. The US is the only significant country that has not ratified it. However, there are still Parties to the CBD that have so far not passed laws on access and benefit-sharing requirements. Even where such laws are in place, for those seeking access it is not always clear how to satisfy the respective requirements, or with whom they should negotiate (particularly when indigenous peoples are involved). This inhibits the access that the CBD seeks to promote.

Ever since the CBD was signed in 1992, ways have been sought to codify and make clearer how the principles of access and benefit sharing (ABS) are to be realized in practice. Progress towards this was achieved in October 2010 when the CBD Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (Nagoya Protocol) was adopted after very difficult negotiations. This Protocol provides for parties to put into place certain types of measures in their domestic ABS regimes as well as to provide that genetic resources and traditional knowledge utilized within their jurisdiction have been accessed in accordance with domestic requirements of other parties. The Nagoya Protocol was open for signature until February 2012 and signed by 92 countries; it shall come into force on the ninetieth day after the date of deposit of the fiftieth Party's ratification.

CURRENT LANDSCAPE | Hard work is still necessary in order to implement the Nagoya Protocol in an innovation-friendly, balanced manner in national legal orders.

One proposal for a new requirement which is discussed in this context but also at other international fora (WIPO, WTO) is related to intellectual property, and is favoured by developing countries because they believe it would encourage respect for and conformity with the CBD. This is that patent applicants using genetic resources should state which are the countries providing such resources or from which they originate, and (in some variants) should provide evidence that they have permission from those

countries and have agreed to share benefits with them. Business generally opposes this, on two main grounds: firstly, that it would not help to achieve the objective of fair and equitable benefit sharing of the CBD and the Nagoya Protocol; secondly, that in many cases patent applicants would not have, nor be able to, obtain the information requested.

If the filing of a patent application were to be conditioned on such a requirement, the exploitation of inventions for general benefit might be seriously impeded. At best, the uncertainty caused by these demands seriously discourages research on, innovation with, and exploitation of new inventions that have a vital contribution to make to human welfare.

FUTURE PERSPECTIVES | From the discussions which led to the agreement of the Nagoya Protocol, certain issues remained outstanding and have still to be discussed. These issues relate, for example, to whether there would be a need for a so-called Global Multilateral Benefit-sharing Mechanism to deal with the fair and equitable benefit sharing derived from the utilization of genetic resources and associated traditional knowledge that occur in transboundary situations, or for which it is not possible to grant or obtain prior informed consent. Other issues relate to the ABS Clearing House mechanism and cooperative procedures and institutional mechanisms to promote compliance of the Parties' implementation measures with the provisions of the Protocol, and to address cases of non-compliance.

Business will continue to demonstrate that intellectual property rights (IPR) are compatible with the protection of the environment and can promote the objectives of the CBD and the Nagoya Protocol, such as sustainable use of genetic resources and equitable sharing of benefits. Business will also continue to attempt to defuse emotional issues, reduce inflated expectations and rationalize the debate, especially in the media. Business will seek to comment constructively in discussions concerning the relationship of intellectual property to genetic resources.

Business supports suitable compensation for use of genetic resources, based on Mutually Agreed Terms (MAT), in line with the CBD and the Nagoya Protocol. On disclosure of origin, business generally opposes using the patent system to enforce unrelated obligations. The proliferation of often inconsistent requirements in this area will increase costs and deter development of sustainable uses of biodiversity. Requirements for the disclosure of the origin of biological materials in patent applications will increase legal uncertainty. They are neither effective as a tracking mechanism for access and benefit sharing nor workable in practice as the origin of genetic resources is often impossible to determine. Business will follow closely national debates on the ratification and implementation of the Nagoya Protocol.

ICC CONTRIBUTIONS | As the representative of the business community ICC acts as a focal point for businesses in the CBD/ABS negotiations on the outstanding issues to the Nagoya Protocol. ICC also proposes practical solutions to the implementation of the Nagoya Protocol and contributes to the discussions in WIPO and the WTO. ICC has issued several papers on related issues which can be found at www.iccwbo.org/advocacy-codes-and-rules/areas-of-work/intellectual-property/.

2. Climate change

BACKGROUND | Climate change is one of the biggest challenges of our time and is of fundamental relevance to business in its role not only as innovator, financier and investor but also as a societal partner and employer. Climate change mitigation and adaptation require common efforts of the more industrialized countries as well as the less industrialized and emerging countries, of the public sector and of the private sector. The private sector contributes the major part of investments and innovations, while the governments provide an enabling framework that creates an environment for innovation and deployment and dissemination of technologies.

Existing and new technologies, as well as continued, constant innovation, deployment and diffusion of technologies are means to achieve global adaptation and mitigation goals. Appropriate institutional frameworks – including essential tools for implementation such as IPR protection, market-based licensing of those rights and innovative funding – will be required to accelerate and scale up technology development, deployment, cooperation and investments of business in these areas.

IPR are critical to the technology development and deployment process and allow providers of technology solutions to invest in continuous technological improvement to the benefit of users.

CURRENT LANDSCAPE | Advancing technology is critical to affording climate change mitigation and adaptation, and requires significant investment from the private sector. Governments should create environments that incentivize and support these investments. Currently, the most prominent intergovernmental forum to discuss and negotiate global solutions to climate change is the United Nations Framework on Climate Change (UNFCCC).

The Convention entered in force in 1994 with now 196 parties. In 1997, the Kyoto Protocol was approved by a number of nations and committed so-called "Annex I" countries to reduce their overall emissions by an average of 5% below 1990 levels. The Protocol's first commitment (2008-2012) created market and technology mechanisms – the Clean Development Mechanism (CDM), Joint Implementation (JI) and International Emissions Trading (IET) – to support emissions reductions. Negotiations on a second commitment period and a new working group on "Long Term Cooperative Actions" to enhance implementation of the UNFCCC by all Parties failed to conclude in Copenhagen in 2009.

The Cancun agreements in 2010 "re-launched" the negotiations and included agreements on the Adaptation Framework and the Adaptation Committee, the Green Climate Fund (GCF) and the Technology Mechanism (TM). The TM includes the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) whose role is to examine technology development and transfer including mechanisms to support and enhance technology diffusion and deployment.

In 2011, parties agreed in Durban to form a new negotiating body, the Ad Hoc Working group on the Durban Platform for Enhanced Action (ADP); its work is scheduled for completion in 2015, and a comprehensive agreement of all Parties should take effect from 2020. The Durban outcomes also established a second commitment period under the Kyoto Protocol that was further amended in 2012.

FUTURE PERSPECTIVES | The UNFCCC negotiations can now focus on the development of a comprehensive post-2020 agreement under the ADP. However, challenging issues remain on the table, both in the ADP and in the different subsidiary bodies, including competitiveness and trade, IPR protection, and new market mechanisms and adaptation.

IPR, particularly patents, provide the primary means for assuring necessary private sector investment in the invention, development and deployment of the technologies needed to reduce emissions. The UNFCCC should resist proposals that introduce new IP flexibilities making investment more difficult and less predictable. These would be unlikely to promote wider application of innovations addressing consequences of climate change and be quite likely to inhibit their creation in the first place.

Clean technology innovation should be supported by policies that encourage and enable its development, dissemination, transfer and use. Technology Needs Assessments (TNAs) and Technology Roadmaps and their methodologies and templates are useful tools in this regard. Training and education of local policymakers, workers and consumers will also be an important component of implementation going forward.

ICC CONTRIBUTIONS | ICC has a long-standing engagement in the climate arena. It is the coordination umbrella body for business in the UNFCCC negotiations and provides input to new bodies, such as the TEC, CTCN and the GCF. In the discussions at the international and national level, ICC shares positive examples of the development, dissemination and use of environmentally sound technologies and highlights policies that create enabling environments for these processes.

ICC has issued a "green economy roadmap" including nearly 60 best practices and several summary papers for UNFCCC meetings highlighting the important role of intellectual property and overall enabling conditions for the transition towards a "green economy".

ICC continues to provide critical feedback to governments and IGO's on the role of IPR and enabling environments including: comments on draft OECD statement on harnessing freedom for investment for green growth, environmental taxation principles and WTA recommendations on environmental goods and services.

III. INNOVATION

BACKGROUND | The availability of cost-effective solutions to address global challenges – including health, the environment, job creation, education and food security – will depend on the development and widespread deployment of existing and new technologies. In keeping with past trends, the private sector will likely continue to account for the vast majority of R&D investments, as well as for the majority of expenditures to develop and deploy new, improved technology solutions. Intellectual property rights (IPR) are critical tools that enable companies to amortize such investments and to assure a return to those who supply the necessary capital.

In a world of increasingly complex technology, new product development depends on the ability to pull together ideas, expertise and innovations from multiple disciplines, from multiple entities (both public and private) and from multiple countries. To create new products and services in a fast-changing marketplace, many companies find it crucial to be able to share ideas and work closely with partners and even competitors. This form of networked innovation is often called "open innovation". The ability for different entities to work together, sharing what they know and partnering to build on existing technologies, is supported by robust IP protection, which facilitates collaboration by providing certainty and predictability.

Businesses partner with a range of organizations to leverage resources and benefits to mutual advantage. One key contribution of business is to provide the significant investments required to refine a discovery, identifying applications and finding a path to bring it to market. Government and academic contributions to innovation are frequently in the area of basic research and demonstration. Commercialization of such discoveries generally requires large investments of private capital to make the fruits of such research available to the marketplace. One highly efficient means of moving government and academic research to market is the transfer of patents or the licensing of patents and related know-how to the private sector, to stimulate the additional investments by business that are required.

Business, the primary source of R&D investments, is a critical actor in the development, demonstration, commercialization and dissemination of technology. Also, the business community has a strong interest in meeting the needs of the growing consumer base in emerging and developing countries. This makes business as well as human sense, given that the judicious application of technology can generate significant development benefits. Business is therefore a critical resource for countries seeking to upgrade their technological capacity and, increasingly, companies are partnering with governments (as well as private actors) around the world as they work to develop appropriate,

cost-effective technology solutions for different customers. Such collaborative activities tend to be concentrated in countries with policy environments that favour innovation and investment, including enforceable IPR and supporting institutions. In addition to IP, technology investments and technology transfer deals can be supported and incentivized by tax incentives, removal of local content requirements and government procurement restrictions, removal of tariffs and non-tariff barriers (NTBs) and, depending on the situation, even by direct government investment.

An important enabler of technology investments and transactions, IPR support the innovative process and are a key component of enabling environments for foreign direct investment, partnership and international trade in goods and services. Effective systems of IP protection facilitate the transfer of technology and the development of local industry, by making it attractive for technology providers to not only invest but also to partner with local actors and share their expertise or "know-how". Over time, collaboration results in upgrading of the local capacity and knowledge base, creating a sound foundation for continued technology deployment, innovation and economic growth. In addition to its positive impact on growth and job creation, this process yields concomitant benefits for the achievement of public policy objectives such as better healthcare. IP protection is one important component of a policy environment that supports sustained technology diffusion and advancement.

CURRENT LANDSCAPE | The role of IPR in facilitating the transactions that underpin technology diffusion, across countries and sectors, is not fully recognized by officials in certain countries, notably developing countries. This may be due to a low awareness of the contribution of IPR to innovation and commercialization of new products and services, whether such solutions originate in the business, government or academic communities. It could also be due to the reality in many countries without basic infrastructure or a sound business environment, where IP systems are not the main consideration for companies deciding where to do business. Because IPR are enablers (not drivers) of technology transactions, in such environments even the most robust IP system will not be enough to attract partners. Also, often certain officials are not fully aware that IP tools are being used, or could be used, by domestic entities to achieve their goals domestically and abroad. As more entities in developing countries become innovators in their own right and increase their use of the IP system, the IP scepticism embraced by certain officials may diminish.

FUTURE PERSPECTIVES | Governments seeking to foster the transfer of technology and accelerate the process of building domestic capacity have at times enacted counter-productive policies aimed at forcing technology transfer. Technology diffusion and, most importantly, the diffusion of critical know-how related to technology, occurs over time and cannot be forced by either party. Even if IPR that read on a particular technology solution are set aside, placing that solution in the public domain, this does not guarantee the ability to work and improve upon the technology. Know-how is crucial to the sustained upgrading of the capacity to use and further develop technologies – and the transfer of know-how cannot be forced. Thus, policies aimed at forcing technology transfer, such as compulsory licensing, do not constitute a sound long-term strategy for technological advancement and growth.

In reality, attempts to force technology transfer whether through IP weakening or other policies, together with limitations on market-based deployment of technology solutions, make it less likely that a country will access technology. Such approaches should be avoided and/or limited to extremely rare short-term situations where there is truly no alternative. The use of compulsory licensing, in particular, to obtain commercial advantage for domestic competitors is ineffective and best avoided. This signals to potential technology partners that they should not invest or share what they know in that jurisdiction, lest their IP be appropriated for the advantage of their competitors. Rather than encourage valuable, sustained engagement and partnership, such policies tend to undermine access to existing and new technologies, and to jeopardize further deployment of cutting-edge technology solutions in that country.

Governments should work towards building local innovative capacity and implement policies that support technology development and dissemination. These include developing a well-trained and educated workforce, providing suitable tax incentives, ensuring effective protection of IPR, providing a legal framework to support market-based licensing of those rights, putting in place regulations favouring investment and trade, providing funding incentives to research and implementing appropriate policies in other areas.

ICC CONTRIBUTIONS | ICC has commissioned a series of research papers on the role of intellectual property in innovation. This research project aims to contribute to a better and more concrete understanding of how IP is actually used in innovative processes so as to help policy makers design IP and innovation-related frameworks that achieve national policy goals more effectively. The research papers address five areas: the role of IP management in SMEs; open innovation; trade secrets; the evolving geography of innovation; and channels for technology transfer and diffusion. More information on this project can be found at: www.iccwbo.org/Innovation-and-intellectual-property.

IV. COMPETITION

BACKGROUND | Tensions naturally exist between competition law ("antitrust law" in the US) and intellectual property rights (IPR). TRIPS Articles 8.2 and 40 allow WTO members to adopt measures to control anti-competitive practices based on IPR. WTO, OECD and UNCTAD have set up groups to study such practices but the major activity has been at national or EU level. (The special case of patents and standards is dealt with in section A, II, 2.2, Patents and Standards).

Over the years, competition authorities have identified three distinct ways in which intellectual property may prove anti-competitive:

- a) A dominant position resulting from ownership of intellectual property may be abused by its owner.
- b) A licensor may impose restrictive licensing terms on his licensee that secure inappropriate reward for his intellectual property. For example, with geographical variations of approach, competition authorities and courts will consider the anti-competitiveness of a licensor's setting a minimum price at which a competitor licensee sells the licensed product, or of a licensor's requiring a patent licensee to buy an unpatented starting material from the licensor ("tying").
- c) If a patent office grants patents of low quality, if processes for challenge are poor, and if the law is generally uncertain and punitive, then competitors of patentees may choose to respect them rather than to ignore or challenge them.

There may be interaction between (a) and (c), most explicitly in the US.

CURRENT LANDSCAPE | Under heading (a) above, US authorities have been traditionally relaxed. Reports by the Federal Trade Commission in 2003, and by the Federal Trade Commission and the Department of Justice jointly in 2007, took the view that intellectual property rights only rarely create monopolies in the antitrust sense. Patent holders may generally refuse to license their technology to others without violating the antitrust laws.

In contrast, the European Commission has long promoted the compulsory licensing of IPR in special market situations. Early cases involved listings of television programmes, structuring of market

research results and waste recycling. More recently, the Commission took action against Microsoft on its non-release of technical information, and warned the pharmaceutical industry of its willingness to take action against "defensive patents" (i.e. patents in respect of which the owners were no longer pursuing relevant innovative efforts) if they were being used to block innovation by competitors.

Under heading (b) above, the US authorities issue guidelines and generally a "rule of reason" approach is adopted. Under this approach, only agreements that unreasonably restrain trade are invalid under the antitrust laws. Courts analyse whether an agreement's anticompetitive effects are outweighed by its procompetitive benefits. For example, a licensing term that bars the licensee from contracting with the licensor's competitors may be permissible if the court finds that the agreement prevents others from freeriding on the licensor's prior research and development. Also, "tying" in a patent licence may be permissible in the US provided that the patent does not create a dominant position (an interaction between (a) and (c) of the type already mentioned). Even the setting of a minimum price will be subject to a rule of reason analysis (for instance, taking into account the fact that a licensor and licensee are non-competitors).

In the EU, the European Commission (the Commission) interests itself in individual potentially restrictive agreements (recently, patent dispute settlement agreements in pharmaceuticals). It also grants block exemptions to specified classes of agreements (almost guaranteeing legal enforceability to qualifying agreements) and issues guidelines for those agreements not covered by the block exemptions. On "tying", the EU technology transfer guidelines are less generous than the US law: tying may be treated as anti-competitive even though the patent does not establish a dominant position. Moreover, the Commission seems to take the view that no conceivable circumstances surrounding the setting of a minimum price could satisfy the conditions necessary for it to be lawful.

There are two key EU block exemptions for IP agreements:

- the regulation on research and development cooperation agreements, the current version of which came into force on 1 January 2011 and remains in force until 31 December 2022; and
- the regulation on technology transfer, the current version of which came into force on 1 May 2004 and remains in force until 30 April 2014.

These regulations are of limited direct use for larger companies, in that the exemption depends on rather obscure market share thresholds not being exceeded. On the other hand, if they list "hard-core restrictions" barring an exemption even if the market share is not exceeded, then larger companies have to consider very seriously before including them in agreements; they may also be guided by "conditions" and "excluded restrictions" in the regulation. When the research and development cooperation regulation was last revised, the Commission proposed initially to make exemption conditional on the agreement's providing for elaborate measures to avoid "patent ambushes" in R&D cooperation. This proposal was hotly disputed by business (including ICC): to comply with the condition in an agreement would have imposed impractical burdens on the parties and led to breaches and disputes; while not to comply would have encouraged any party, later regretting the agreement for other reasons, to challenge its enforceability. Either way, performance of research and development cooperation would have been inhibited, and in any case the patent ambushes in question were hypothetical constructs based on a false analogy with patent ambushes in relation to standards. Fortunately, the Commission gracefully admitted the force of these objections.

Under heading (c) above, the Leahy-Smith America Invents Act, which came fully into force in April 2013, has addressed relevant weaknesses in US patent law, notably by reducing uncertainty on validity compared with the former "first-to-invent" law, by improving the opportunities for third-party attack on patents, and by mitigating the provision for triple damages under Section 284 with a new

Section 298. Changes with broadly similar intent came fully into force in Australia, also in April 2013, under the IP Laws Amendment (Raising the Bar) Act 2012.

FUTURE PERSPECTIVES | In the EU, the key foreseeable development will be the replacement of the regulation and guidelines on technology transfer from 1 May 2014. As with the replacement of the research and development cooperation exemption, the Commission's original proposals for the exemption sought to narrow its scope even for those enterprises that met the market share test. Among the proposals were that the exemption would not apply if the agreement permitted the licensor to terminate the licence if the licensee challenged the validity of licensed rights. In addition, the draft guidelines sought to deal with concerns over settlement agreements relating to pharmaceutical patents by general statements applying to all settlement agreements.

ICC CONTRIBUTIONS | ICC has commented on EC proposals for research and development and on technology transfer, and continues to monitor developments in this area. (see www.iccwbo.org/advocacy-codes-and-rules/areas-of-work/competition/technology-transfer/)

V. INFORMATION SOCIETY

BACKGROUND | Digital high speed (broadband) networks enable the distribution of digital content and other cultural goods, both in streaming and on-demand formats. Content owners and authorized distributors are rapidly using high speed networks to provide services and content offerings on different delivery platforms using a variety of business models. New online platforms are driving an explosive growth of creativity online. The growth of legitimate services is challenged by a number of factors, including difficulties in protecting the distribution of content in the high-risk digital environment.

At times, some offer polarized views in this debate – offering absolutist positions about the benefits or harms of protection or limitations on copyright. Of course, intellectual property protection is an essential pillar for the development of electronic commerce and the integration of information and communication technologies. At the same time, it should also be understood that copyright protection does not apply to information, facts or ideas – only the particular form in which they happen to be expressed. It is also important to note that copyright protection is not absolute – copyright is limited in time, and many exceptions to copyright protection already exist in most jurisdictions. Such exceptions are established in accordance with relevant international law and are determined at the level of national laws. Even with regard to uses where exceptions are not applicable, voluntary solutions – such as flexible licensing of new or pre-existing intellectual property rights (IPR) – are evolving in forms that preserve the rights granted to the copyright holder while facilitating wider access to such works (e.g. licensing systems such as Creative Commons provide a range of standardized copyright licences that specify what uses are permissible, and whether the content may be distributed or copied).

A well-balanced system that incentivizes creators, while providing a balanced system of exceptions and limitations, is supportive of economic growth for a broad range of stakeholders that includes both copyright owners and users, as well as those taking advantage of the exceptions and limitations inherent in the system. With this in mind, it is essential to recall that one of the primary purposes of copyright protection is actually to promote public availability of works that would otherwise not be shared with the public at large without a guarantee of the ability to protect them, and receive a return on the investment, time, effort and skill required for their production and distribution.

CURRENT LANDSCAPE | The Internet and technology in general have amplified the ways in which content, ideas and information can be disseminated, consumed and created. Legislators and policy makers have always had to grapple with striking a balance between the rights of creators and the interests of users in the context of such new technological developments. Copyright law is inherently

flexible to deal with such challenges, provided it is applied within a broader legislative framework that promotes the dissemination of content, recognizing that there are many factors beyond intellectual property protection that should be considered in promoting a balanced and productive information society.

Evolving issues in the area of copyright law have an impact on how content is distributed and made available to the public, and these are canvassed more fully in section B, III, Copyright.

FUTURE PERSPECTIVES | Business will continue to actively participate in the formulation of Internet policies that have an impact on IPR and promote the message that IPR protection fosters the creativity necessary for the development of the Internet, as well as the creation and dissemination of further works to the benefit of the public. Development of business models as well as reliable technical protection continues.

Businesses have engaged in numerous ventures to make significant amounts of content more widely available in a secure manner over the entire array of new media platforms. The Robots Exclusion Protocol (REP) is an existing protocol dating from the 1990s that provides ways to inform compliant search engines, either at site or page level, if they can crawl web pages on the Internet. Another example is the Automated Content Access Protocol (ACAP) which is a technical specification developed by a cross-sectorial industry group including publishers, other content industries and search engines that will inform search engines of the uses that they can make of content publicly available on websites and enable new business models. More recent initiatives include the Copyright Hub²⁶ and the Linked Content Coalition²⁷.

Business should continue to explore opportunities to increase safe and legal accessibility of materials. Business encourages a dialogue focusing on systems for technically secure online distribution of works, and digital rights management (DRM) technology to protect such distribution and foster innovation and creativity.

Governments should adopt policies to foster innovation and creativity on the Internet that include the protection of IPR. A practical and effective way to achieve this is for governments to ratify and accede to the Berne Convention, TRIPS and the WIPO Internet Treaties and to implement and enforce the provisions of these instruments effectively.

The Government Advisory Committee to ICANN should encourage ICANN to adopt policies to foster electronic commerce, including furthering the protection of intellectual property. Governments should support effective enforcement of IPR and partnerships that permit secure and legal access to content on the Internet.

ICC CONTRIBUTIONS | ICC launched the Business Action to Support the Information Society (BASIS) initiative in mid-2006 to represent business interests and provide business experience to global forums including the Internet Governance Forum (IGF), the Global Alliance for ICT and Development (GAID), the post-WSIS follow-up and implementation activities.

²⁶ www.copyrighthub.co.uk/

²⁷ www.linkedcontentcoalition.org/

Notes



CCPIT PATENT AND TRADEMARK LAW OFFICE is one of the largest full-service intellectual property law firms in China with the longest history. The firm has 252 patent and trademark attorneys, among whom 77 are qualified as attorney-at-law. In total, the firm has 550 people. The firm provides prosecution, litigation, administrative enforcement, transaction and consultation services relating to patent, trademark, copyright, trade secret, trade dress, domain name, anti-unfair competition, licensing and other intellectual property related matters.

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Brazil moves forward, so does its defense for Intellectual Property.

The National Confederation of Industry - CNI leads through its **Intellectual Property Program for Industry Innovation**, since 2010, the largest venture for dissemination of and training in the strategic use of intellectual property in Latin America. **For more information, visit: www.propintelectual.com.br**



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DANNEMANN Siemsen Bigler & Ipanema Moreira

annemann Siemsen, founded in 1900, is active in all fields of industrial and intellectual property and has expanded to incorporate expertise in new areas of IP and related laws, such as franchising, domain name protection, software registration, consumer protection, unfair competition and the licensing of industrial property rights and trade names.

With 180 attorneys and a total staff of nearly 1000 in 5 offices located through Brazil, Dannemann Siemsen serves the needs of every type of client, from new start-ups to Fortune 500 Companies. Although today it is the largest intellectual property firm in Brazil, Dannemann Siemsen continues to operate as a "boutique" office committed to giving its clients the best possible direct and personal service. Many of the firm's clients have been with the firm for years, if not decades.

Consistently recognized for the quality of its service, the firm has been elected the Brazil IP Firm of the Year, by Managing Intellectual Property, every year since 1997. A number of individual partners of Dannemann Siemsen have also been recognized as being in the first Tier by Chambers and Partners.

In spite of having been founded over a century ago, Dannemann Siemsen today is modern and dynamic, constantly seeking ways to improve its services while maintaining its commitment to excellence. At the same time, it is dedicated to community and public service and actively participates in social programmes that give opportunities to the underprivileged.



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LET'S GO.

The International Chamber of Commerce (ICC)

ICC is the world business organization, a representative body that speaks with authority on behalf of enterprises from all sectors in every part of the world.

The fundamental mission of ICC is to promote open international trade and investment and help business meet the challenges and opportunities of globalization. Its conviction that trade is a powerful force for peace and prosperity dates from the organization's origins early in the 20th century. The small group of far-sighted business leaders who founded ICC called themselves "the merchants of peace".

ICC has three main activities: rule setting, dispute resolution, and policy advocacy. Because its member companies and associations are themselves engaged in international business, ICC has unrivalled authority in making rules that govern the conduct of business across borders. Although these rules are voluntary, they are observed in countless thousands of transactions every day and have become part of the fabric of international trade.

ICC also provides essential services, foremost among them the ICC International Court of Arbitration, the world's leading arbitral institution. Another service is the World Chambers Federation, ICC's worldwide network of chambers of commerce, fostering interaction and exchange of chamber best practice. ICC also offers specialized training and seminars and is an industry-leading publisher of practical and educational reference tools for international business, banking and arbitration.

Business leaders and experts drawn from the ICC membership establish the business stance on broad issues of trade and investment policy as well as on relevant technical subjects. These include anti-corruption, banking, the digital economy, marketing ethics, environment and energy, competition policy and intellectual property, among others.

ICC works closely with the United Nations, the World Trade Organization and intergovernmental forums including the G20.

ICC was founded in 1919. Today its global network comprises over 6 million companies, chambers of commerce and business associations in more than 130 countries. National committees work with ICC members in their countries to address their concerns and convey to their governments the business views formulated by ICC.

For information on how to join ICC, visit the ICC website (iccwbo.org) or contact the ICC Membership Department in Paris.



The world business organization

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