

WIPO MAGAZINE

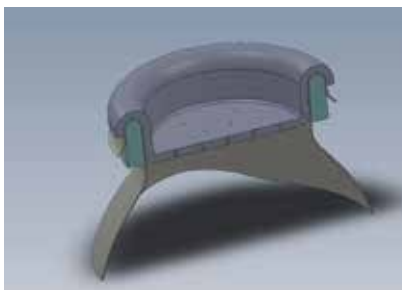
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Guha Shankar

Francis Gurry on the challenges for multilateralism in the field of intellectual property

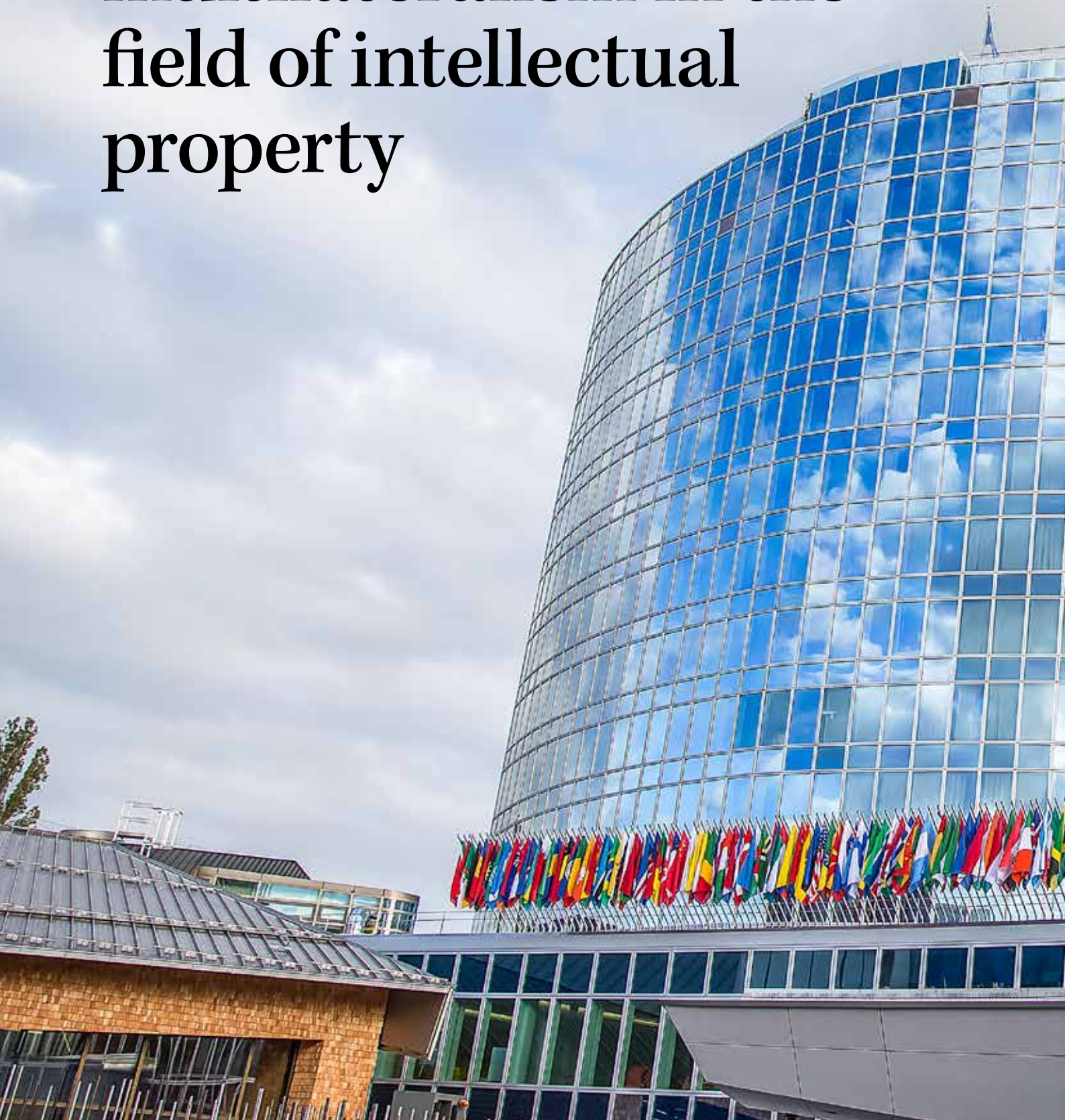




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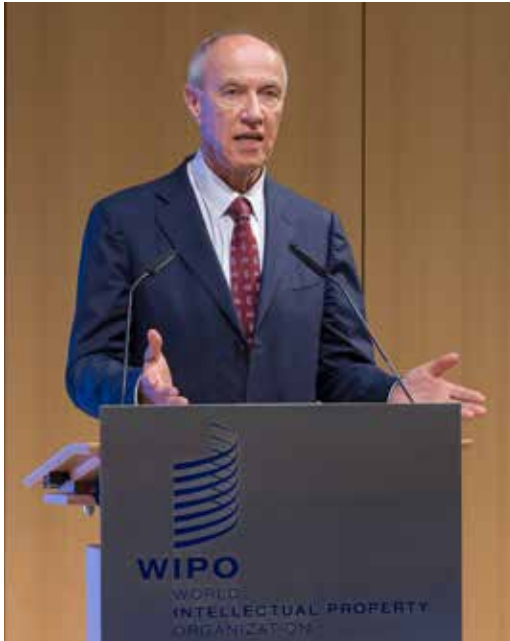


Photo: WIPO

“Not every form of international cooperation needs to be implemented through a treaty.”

As WIPO’s 189 member states prepared to gather in Geneva for their annual meeting of Assemblies, Director General Francis Gurry sat down with *WIPO Magazine* to share his views on the challenges for multilateralism in the field of intellectual property.

Why is multilateralism important in the field of intellectual property?

Multilateralism is the greatest source of legitimacy and inclusiveness for making rules. Through multilateral negotiation the international community aspires to provide a system which is fair to all participating countries, including smaller states.

In the field of intellectual property (IP), multilateralism is especially important because of the mobility and global application of innovation, ideas and creative works, especially in the digital age. If IP is to fulfill its mission to provide a proper economic incentive through protection for creators and inventors, then similar rules will need to apply across the globe where possible.

What are the key challenges for multilateralism in this area?

The biggest challenge is the growing contrast between the extremely rapid speed of technological change and of the business responses to that change, on the one hand, and the relatively slow speed of conventional intergovernmental processes for the development of international cooperation, on the other hand. Such processes are inclusive and require that all states are comfortable with the change that occurs, which can take time. This poses a real and enduring challenge for multilateralism in dealing with IP, which by definition is concerned with the new – innovation and new creative works.

These contrasting speeds explain in large part why over the last 20 years we have seen more international – but non-multilateral – cooperation at the bilateral, plurilateral and regional levels. It is easier to make rules and get agreement among a smaller number of states than it is to do so with the whole world. This shift in the international landscape is a major challenge for multilateralism.

What are the implications of these challenges for IP and how is WIPO responding to them?

In this new and more complex landscape, everyone in the international community needs to think very carefully



Photo: WIPO

“In the field of intellectual property (IP), multilateralism is especially important because of the mobility and global application of innovation, ideas and creative works,” says WIPO Director General Francis Gurry.

about the role of multilateralism and the value it can add. And in the area of IP we need to carefully consider what needs to be done and what can be achieved multilaterally. We need to evaluate what requires multilateral action as opposed to national, bilateral or plurilateral action. We also need to ask ourselves what is the best value that a multilateral institution can add.

Such evaluations involve extensive dialogue between WIPO’s member states and relevant interests in the productive and cultural sectors – industry, creators, innovators and cultural institutions such as libraries. This should make it possible, in principle, for member states to agree on areas where some form of multilateral action is needed – and what can be done.

As a means of international cooperation, does treaty-making have a future?

Not every form of international cooperation needs to be implemented through a treaty. In *The Law of Treaties* back in 1961, Lord McNair said that “a treaty has been described, with some degree of exaggeration, as the only and sadly overworked instrument with which international society is equipped for the purpose of carrying out its multifarious transactions.” That is how the world was 60 years ago. Now we are seeing a broader range of instruments of international cooperation. Many practical advances can be achieved without a treaty.

Individual states often choose to cooperate in small numbers and for a variety of reasons – historical ties, geographical proximity, shared economic

interests. Any two states can agree to cooperate in a certain way. They may wish to cement that in an agreement but it is not essential that they do so. In the same way, the international community can decide to do something through a resolution or decision of one of WIPO's constituent bodies (e.g. the WIPO General Assembly). While such arrangements are generally not binding in the strict legal sense unless adopted in the form of a treaty to which a state accedes formally, they can advance internationally agreed goals. Indeed, the same process that is needed to identify areas where the multilateral can add value is also required when it comes to selecting the instrument used to define the nature of the international cooperation that will take place.

Examples of international cooperation at WIPO where member states decided to cooperate to achieve a given goal include WIPO's global databases, which are an extremely rich source of business intelligence. WIPO also offers practical services like the WIPO Centralized Access to Search and Examination (WIPO CASE) and the WIPO Digital Access Service (WIPO DAS), which seek to improve the quality and efficiency of patent examination work. WIPO also has a number of public-private partnerships, the most prominent of which are WIPO Re:Search and the Accessible Books Consortium (ABC). These initiatives (see box) all function extremely well, yet their establishment did not require a treaty.

In some cases a treaty works in cooperation with a service. For example, the ABC makes operational the legal framework established by the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled.

Many forms of practical cooperation can take place multilaterally to implement or pursue the objectives of a treaty. While the treaty as an instrument is not irrelevant, it is the hardest form of international cooperation to achieve, and not every form of international cooperation needs to take place through a treaty.

Are there costs or risks associated with not being able to achieve multilateral agreements?

The cost is the loss of inclusiveness, which is obviously very significant for small and medium-sized states. The risk is incoherent and inconsistent rule-making, which, like all risks, needs to be mitigated. The Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and

Artistic Works (1886), the pillars of the international system, both foresee that specialized agreements among smaller numbers of states can take place, but stipulate that such agreements must be compatible with the respective conventions. From the outset, the international IP system was framed to accommodate diversity and to encourage coherence in rulemaking at different levels.

Another risk is that if policymaking is too slow, then the market will, by default, make policy. This is evident in the development of new business models for the creation, distribution and consumption of creative works. While this is not necessarily a bad thing, the role of policy is not only to support the market but to ensure that it operates fairly. The market alone should not determine policy. It can lead, in either direction, but there needs to be some form of market supervision.

Opportunity can be the flip side of challenge. What opportunities do you see going forward, and how do you expect the IP system to change?

There are many opportunities, but the question is whether there is a willingness on the part of member states to seize those opportunities multilaterally. The politics of intellectual property have become much more complex and tense as the knowledge economy has unfolded and innovation and intangibles have become more valuable.

While it is not easy, there are opportunities. For example, there is a general consensus – after all, 189 countries now subscribe to the objectives of WIPO – that IP is a valuable policy instrument. The disagreements relate to the questions that arise in determining the boundaries of IP and the balances in the system. There are, of course, areas in which the possibility of achieving new international agreements is extremely limited – in the area of TRIPS flexibilities, for example, where no foreseeable change is in view – but we know that there is a general consensus about IP. We also know there are certain things that are non-controversial. These include recognition that the system is inherently sound and that it should operate in the most cost-effective manner for creators and inventors. That is a huge area of opportunity that I think we do not exploit as much as possible.

We are seeing a huge amount of change in the IP system. One obvious example is the shift in the geography of innovation. Three Asian countries are now among the top five patent filing countries in WIPO's PCT System. Japan and China are in second and third position after



Photo: WIPO

“The hard work and engagement of member states has resulted in a significant amount of international cooperation in form of treaties and other systems and services,” notes Francis Gurry.

Examples of practical international cooperation at WIPO

WIPO's **global databases** are user-friendly, fully searchable and free of charge. They make it easy for anyone, anywhere to access the wealth of information generated by the global IP system. They include:

- PATENTSCOPE with some 57 million patent documents
- The Global Brand Database with over 26 million records
- The Global Designs Database with over 1.6 million registered industrial designs

The WIPO Centralized Access to Search and Examination (WIPO CASE) system enables patent offices to securely share search and examination documentation related to patent applications. Its objective is to improve the quality and efficiency of the patent search and examination process done at local and regional patent offices.

The WIPO Digital Access Service (DAS) is an electronic system that allows priority documents and similar documents to be securely exchanged between participating IP offices. The system enables applicants and offices to meet the requirements of the Paris Convention for the certification of documents in an electronic environment.

The WIPO Re:Search public-private partnership was established by WIPO in collaboration with BIO Ventures for Global Health (BVGH) in 2011. It catalyzes the development of medical products for neglected tropical diseases, malaria and tuberculosis, which affect over one billion of the poorest people on the planet, through innovative research partnerships and knowledge sharing.

The Accessible Books Consortium (ABC) public-private partnership was launched in June 2014. The ABC aims to increase the number of books worldwide in accessible formats and to make them available to people with visual impairment. The ABC is an alliance comprising WIPO together with organizations representing people with visual impairment, libraries and rights holders.

the United States, and the Republic of Korea is in fifth position after Germany. This is a huge change that we have seen unfold over the last 20 years. A similar shift has occurred in the areas of scientific and creative production. That is an area of great change that will continue.

A second area of change is that, as we recognize the growing importance and centrality of IP in the knowledge economy, it is likely that the system will become more sophisticated and complex. Just as the concept of physical property has evolved considerably, becoming vastly more complex, so too I think we might expect the IP system to become more sophisticated as the knowledge economy unfolds. While as a general rule we have one IP system that applies to all forms of technology, there may be a need for some differentiation in the future. As economies become more dependent upon knowledge and as people's understanding of the role of knowledge evolves, so the system of property rights relating to knowledge will become more differentiated and complex.

Third, I think we will see a growing acceptance of the IP system as it becomes increasingly multipolar and as people everywhere become increasingly aware of the important role that technology and innovation play in the economy and society and the significant opportunities created for the enjoyment of cultural and creative works. With that will come, over time, greater acceptance of the need for sound policy mechanisms that ensure the viability of innovation and creative works.

What message do you have for member states?

In the course of its long existence, WIPO has developed a considerable *acquis*. The hard work and engagement of member states has resulted in a significant amount of international cooperation in the form of treaties and other systems and services. In recent years we have been able to make some good progress, with three new international agreements and many other successful forms of international cooperation. But WIPO will not be able to capitalize on these achievements or to continue to thrive without the engagement of member states and a preparedness to reach an international position. This will inevitably involve compromise. The stakes are high for multilateralism, but so too are its rewards.

“Many forms of practical cooperation can take place multilaterally to implement or pursue the objectives of a treaty.”

Exchanging accessible books across borders – as easy as ABC

By **Margaret Williams**, Director, Content and Access, Centre for Equitable Library Access (CELA), and **Margaret McGrory**, Vice President, Canadian National Institute for the Blind (CNIB), Toronto, Canada

The Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled (the Marrakesh VIP Treaty) came into force on September 30, 2016, bringing with it a new era in access to information for people with disabilities.

The Treaty promises to help end the “global book famine” for people who cannot read traditional print because of a disability (called “beneficiaries” in the Treaty). Only a tiny percentage of published works are currently available in formats that they can use. To change this, the Treaty allows the creation and cross-border exchange of accessible books on a non profit basis without the permission of rights holders. Cross-border exchange is vital to minimize the duplication of effort and cost when two or more “authorized entities” – government or non profit organizations serving beneficiaries – make the same work accessible rather than adding to the overall number of works available.

PUTTING THE THEORY OF MARRAKESH INTO PRACTICE

Beneficiaries and authorized entities in countries that have ratified or acceded to the Marrakesh VIP Treaty can now concentrate on applying its provisions. How do we find out which works are available in alternative formats in other countries, how do we obtain them and how do we contribute back ones that we have produced? How can we comply with the terms of the Treaty as implemented in national laws without adding administrative burden?

In this article we share the experience of one authorized entity, CNIB (Canadian National Institute for the Blind), with the book service of the Accessible Books Consortium (ABC) which has worked with stakeholders

to establish a technical infrastructure and business processes that respond to these questions. The ABC book service is also known under its pilot project name, the TIGAR service. We look at what the service offers, its value to us and future potential, and how to get started.

CNIB is the largest producer of books in alternative formats in Canada. Since 2014, CNIB has offered access to its collection to an estimated population of three million Canadians with print disabilities through the Centre for Equitable Library Access (CELA) and CELA’s nearly 2,000 public library members. CELA maintains CNIB’s legacy collection and selects new titles from a variety of sources, including the ABC book service.

THE ABC BOOK SERVICE

Simply put, the ABC book service allows an authorized entity in one country to find and obtain accessible books produced by an authorized entity in another country, and to provide them to beneficiaries in their own jurisdiction.

While designed with Marrakesh in mind, the service also handles cross-border exchange between countries that have yet to ratify or accede to the Treaty, and hybrid exchanges between countries that have joined and those that have not. In such cases, permission from rights holders is still required.

To support this process, the ABC book service features:

- a shared catalogue of accessible books produced by participants;
- a permissions management system and request service;
- a secure facility for requesting, uploading and downloading files; and
- a reporting system for usage statistics.

The service is fully digital. Unlike interlibrary loans, which involve shipping physical items around the globe and can take weeks or months, it allows an authorized entity to add a book to its own repository and to deliver it immediately according to local practices, such as by secure download to a reading device or by mailing a physical item.

VALUE AND POTENTIAL OF THE SERVICE

Because the ABC book service handles permission requests, participating authorized entities have been able to start exchanging while waiting for ratification of the Treaty. As of September 2016, the shared catalogue of the book service contained more than 319,000 works in digital audio, braille and text in 76 languages from 19 producers in 16 countries. Authorized entities reported that over 102,000 beneficiaries had received titles acquired through the ABC since September 2013.

This test period has been instrumental to us at CNIB in determining what needs to happen on a practical level. It has given us time to make refinements before the impact of Marrakesh brings an influx of materials on a larger scale. Some examples of the benefits we have seen include:

- **Collection development.** We have acquired 1,500 books more than we would otherwise have been able to, by not duplicating the production effort of others. And we have fulfilled more than 100 user requests and filled gaps in series and works by major authors.
- **Cost avoidance.** The books we have added would have cost more than CAD 2 million to produce ourselves. It is rewarding to see other authorized entities gain in return, and a point of pride to know that our titles by Canadian authors are in demand.
- **Streamlined process.** We have signed a single agreement to access content from multiple partners, set up technical and business workflows once only, and have been able to automate routine tasks.
- **Trusted services.** Use of the ABC book service has reassured rights holders that WIPO, an organization they trust, manages technical infrastructure and permissions clearance.
- **Community input.** We participate in a user group with other authorized entities to share experiences and suggest improvements to features such as accessibility, usability and reporting. We are interested in seeing further developments in metadata harvesting and quality and user authentication.

As countries continue to ratify the Marrakesh VIP Treaty we expect the number of works available through the service and its usage to grow exponentially. In particular, we

Top 12 non-official languages spoken at home in Canada

Language	Number of Speakers
Chinese languages	789,190
Punjabi	317,075
Spanish	252,015
Arabic	181,790
Tagalog	161,080
Italian	139,480
German	126,375
Persian (Farsi)	118,830
Urdu	113,785
Russian	109,735
Vietnamese	104,960
Korean	104,905

Source: Statistics Canada: Population of Census, 2011.

Languages other than English and French spoken at home by more than 100,000 people in Canada.

look forward to finding books in languages that reflect the diversity of Canada, where one out of every five people was born elsewhere; allowing individuals with print disabilities in Canada to access the catalogue and request materials; and proactively coordinating production to further reduce duplication.

GETTING STARTED WITH THE ABC BOOK SERVICE

A. Sign an ABC agreement with WIPO

To join the service, your organization must be an authorized entity – which establishes that the people it serves are eligible and ensures that copies of works are only distributed to beneficiaries – and must sign an agreement with WIPO which manages the ABC. This agreement commits you to provide:

- catalogue information for the titles you agree to share;
- alternative format files at the request of an authorized entity or a rights holder; and
- usage statistics for each title you receive and distribute.

B. Add your information to the shared catalogue

First, identify which titles you may share. Titles produced under a national copyright exception or for which the rights holder has granted permission are eligible. All books must be digital.

The ABC book service will import your information into the shared catalogue. Most authorized entities use the library cataloguing standard MARC (Machine Readable Code), but the service supports much simpler metadata – title, format and ISBN in a spreadsheet – to enable participation by authorized entities without library systems.

C. Exchange accessible books

If another authorized entity requests a title that you have produced, the system prompts you to upload that file. We have automated this process.

You can search for titles in the catalogue by format, language, date and more. By default, you see all titles in the catalogue. You can filter to see which ones have been cleared for your country. If no one has requested a work yet, you may order it. The system notifies you when permission is cleared or refused and when the file is ready for download.

You can download both the file and catalogue information. When adding the information to your own catalogue, include the unique identifier that the service assigns so that you can report on usage of titles received through ABC. Again, we have automated the process of adding files to our repository.

CNIB was among the first participants of the ABC book service. Through a single agreement with WIPO, we have access to the collections of some of the largest alternative format producers around the world. The service has allowed us to offer significantly more books, faster than would otherwise have been possible and at virtually no additional cost to Canadians with print disabilities through CELA, our public library service partner. And by contributing our titles in alternative formats to others participating in the ABC book service, we are proud to be helping to end the book famine for people with print disabilities worldwide.

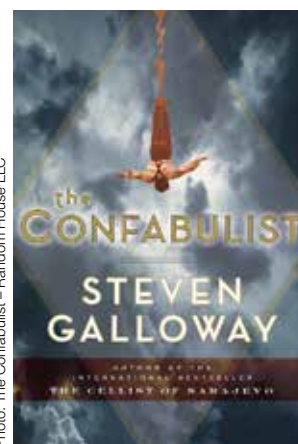


Photo: The Confabulist – Random House LLC

The ABC difference: in 2008, four organizations, including CNIB, made separate recordings of *The Cellist of Sarajevo* by Canadian author Steven Galloway. In 2014, CNIB recorded his next book, *The Confabulist*, and three other organizations received it through ABC.



Managing rights in digitized indigenous music

by **Wend Wendland**, Director,
Traditional Knowledge Division, WIPO*



Photos: Photo: Courtesy of The American Folklife Center, Library of Congress/Gaina Shankar/Courtesy

*This article is written in the author's personal capacity and does not necessarily represent the views of WIPO or any of its member states.

It was beneath the old acacia tree where the community elders meet that Ole Kaunga and Ole Tingoi turned to me back in 2006 with an idea that could help the Maasai people of East Africa open up a modern-day revenue stream. “Let’s build a library of our music and sell it online,” Ole Kaunga said. “Like iTunes.”

Ole Kaunga and Ole Tingoi are members of the Maasai community at Il Ngwesi, Laikipia, Kenya.

And so began an ambitious partnership that seeks to deliver concrete benefits to the community through recording, archiving and commercializing Maasai music and other cultural expressions.

This groundbreaking project lies at the crossroads of heritage preservation, self-determination, rural development, community entrepreneurship, promotion of creativity and bridging the digital divide.

The United Nations has even made a film about it.

PUTTING INDIGENOUS AND LOCAL COMMUNITIES IN THE DRIVING SEAT

The project recognizes both the benefits and dangers of new technology for indigenous and local communities. While new technologies can preserve and disseminate indigenous heritage like never before, it is critically important that communities themselves are empowered to make informed decisions about how to manage resulting intellectual property (IP) rights in line with their cultural values and development goals.

That is why this pilot project is seeking to put indigenous and local communities in the driving seat. The project is being rolled out by WIPO in partnership with the American Folklife Centre at the Library of Congress, Washington, D.C., and the Center for Documentary Studies at Duke University, North Carolina, United States. As the project launched, the National Museums of Kenya also lent a valuable helping hand.

The central idea is for the Maasai to shift from being the *objects* of study to the *producers* of their own

documentary archive, and as such, *owners* of the rights in those new recordings.

John Ole Tingoi and Anne Tome of Il Ngwesi, who were selected by the community for their interest and aptitude, received hands-on training in the documentary techniques and archival skills needed to undertake effective community-based cultural conservation. WIPO provided the community with IP training to enable them to manage their IP rights plus a basic kit of cameras, sound recorders, computers and software to get the project off the ground.

SUPPORTING RIGHTS MANAGEMENT

The project’s overriding aim is to ensure the Maasai themselves are in a position to manage the IP information relating to each of their recordings. IP rights management is therefore a critical component of the project. This includes identifying who the rights holders are and how these works may be used in line with customary laws and practices.

Rights management is as relevant to the archiving of recordings for conservation purposes as it is to their dissemination and commercialization. Beyond the Maasai pilot project, various other initiatives have sought to develop practical and user-friendly ways for rights holders to manage their rights. Two in particular merit closer consideration.

LOCAL CONTEXTS: COMMUNICATING WITH LABELS

The Local Contexts project offers indigenous communities various “labels” which they can attach to digital recordings of their cultural materials. Under the conventional IP system, these materials are typically considered part of the public domain and, as such, free to use.

The 13 labels currently available through Local Contexts convey important information about the meaning and status of cultural materials to potential users. By labeling their materials, communities can suggest rules of access and use which are often based on customary

TK

The TK Labels provide an option for conveying important information about cultural materials.



TK Family (TK F)



TK Seasonal (TK S)



TK Outreach (TK O)

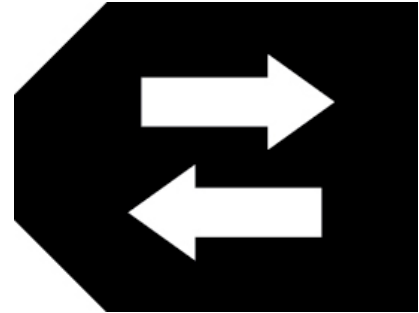


TK Verified (TK V)

Local Contexts is one of a number of initiatives that have sought to develop user-friendly ways for rights holders to manage their rights.



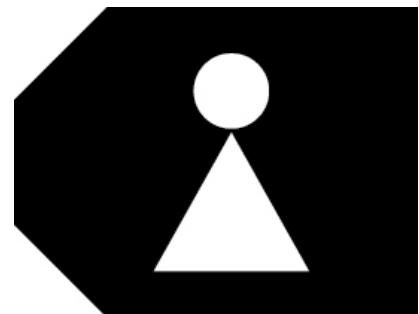
Photo: Courtesy of the American Folklife Center, Library of Congress; photo by Guha Shankar



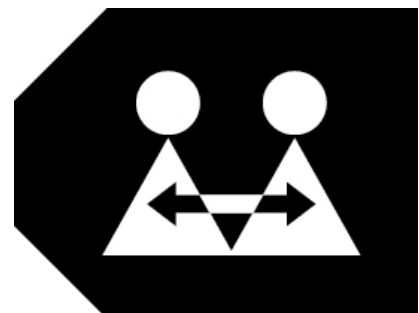
TK Attribution (TK A)



TK Secret/Sacred (SS)



TK Women General (TK WG)

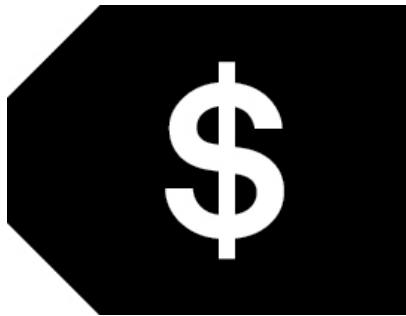


TK Women Restricted (TK WR)

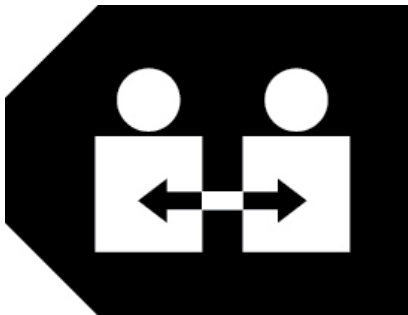
WIPO provided the Il Ngwesi community with IP training to enable them to manage their IP rights and a basic kit of cameras, sound recorders, computers and software to get the project off the ground.



TK Men General (TK MG)



TK Commercial (TK C)



TK Men Restricted (TK MR)



TK Non-Commercial (TK NC)

The TK labels offered by Local Contexts allow indigenous communities to convey important information about their cultural materials.



Photo: Courtesy of the American Folklife Center, Library of Congress/Guina Shankar/Courtesy

Photo: Courtesy of the American Folklife Center, Library of Congress; photo by Guha Shankar



Anne Tome (above) of the Il Ngwesi Maasai community, received hands-on training the documentary techniques and archival skills needed to undertake effective community-based cultural conservation.

laws and practices, giving users of the materials a clear idea what is expected of them in terms of how they use and attribute the material.

This approach is especially valuable when it comes to the use of sacred and/or ceremonial material. For example, the *Traditional Knowledge Community Use Only Label* signifies that the material in question is usually not publicly available, and embodies a request that users think carefully about if and how they are going to use it.

In many instances, when cultural heritage information is collected, a great deal of it is incorrectly recorded or omitted altogether. In response to this problem, the *Traditional Knowledge Attribution Label* puts a community's name back into the archival and historical record and asks users to do the same. The label also reconnects historical material with contemporary communities and connects users with these communities.

Similarly, the *Traditional Knowledge Commercial Label* indicates that material may be used commercially but requests that users respect community protocols. Designed to discourage derogatory use, the label encourages dialogue between the user and the source community.

Clearly, these labels are not “binding”, but, as the founders of the initiative, Jane Anderson and Kim Christen Withey, explain, “they appeal to the better instincts of users of indigenous cultural materials to create and share them responsibly and respectfully.”

The Local Contexts labeling system is designed precisely for communities like the Maasai. Originally developed to support the Mukurtu Project in Central Australia, the labels are now being tested with First Nation and Native American communities in Canada and the United States. The American Folklife Center at the Library of Congress will be one of the first institutions to incorporate the Labels into its catalogue and digital displays through its work with the Passamaquoddy Nation in Maine on labeling and digitizing a collection of 1890s sound recordings.

THE COPYRIGHT HUB: MAKING LICENSING EASIER

A second initiative that can support indigenous and local communities in the management of their IP rights is The Copyright Hub (see www.wipo.int/wipo_magazine/en/2016/02/article_0007.html.)

In the digital environment, creative content is easy to find but frequently separated from its owners and any



The central idea of the pilot project is for the Maasai to shift from being the *objects* of study to the *producers* of their own documentary archive, as as such, owners of the rights in those recordings.



Photos: Courtesy of the American Folklife Center, Library of Congress; photo by Guha Shankar



IP rights-related information. Often we have little or no knowledge of the rights that attach to different materials, or to whom they belong. This stifles sharing, reuse and creativity.

The Copyright Hub, a free-to-use technology platform, addresses this problem by making it easier to license copyrighted and free materials in the digital environment. It does this by attaching identifiers to works, allowing those who want to use the content – intermediaries and owners (or their computers) – to find each other and conclude online licensing agreements in just a few clicks. With the Copyright Hub permissions are handled automatically and are hassle-free. The Copyright Hub's user-friendly approach promises to unlock troves of creative content from around the world.

Although digitized indigenous materials throw up some unusual rights issues from the perspective of conventional copyright, if platforms like the Copyright Hub were to reach out to indigenous and local communities in developing countries, the platforms could accelerate their own global uptake.

WHAT NEXT FOR THE MAASAI PILOT PROJECT?

Back in Il Ngwesi, which lies six hours by jeep along a red-brown rutted road from the nearest metropolitan center in northern Kenya, the project faces several challenges – conceptual, political, legal and logistical, to name a few.

The project is situated within a broader landscape of rural poverty, environmental degradation, climate change, community displacement and land loss, and these factors are putting a brake on the community's brave efforts. In spite of these challenges, the Maasai community at Il Ngwesi is continuing to make recordings and is slowly but surely building up a library of their cultural expressions.

But more investment in time, energy and resources is needed for the community's vision to come to fruition.

OPPORTUNITIES FOR COMMUNITY-LED DEVELOPMENT

A wealth of knowledge is embedded in indigenous cultures – knowledge that can foster creativity and generate tangible community-led economic development.

Creativity within indigenous and local communities around the world is dynamic and abundant. And in an increasingly uniform world, there are significant income-generating opportunities for these communities as consumers seek fresh sounds and designs that are authentic and distinct.

More practical work along the lines of the Maasai project, as a complement to longer-term policy initiatives aimed at revising current IP law, might offer communities concrete and measurable benefits in the shorter term.

But new investment and revitalized commitment are needed if those benefits are to be realized. We need to think clearly about what forms of practical assistance communities need, and how other communities can learn and gain from the Maasai experience.

The Il Ngwesi community has already amassed close to 150 video recordings and over 200 photographs, and has ambitious yet sensible plans for editing, archiving, using and sharing this material.

The Maasai project could serve as a pilot for designing sustainable models that safeguard the richness of indigenous cultures, foster creativity and generate tangible community-level economic development.

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Winning with global innovation: Global Innovation Index 2016

By **Catherine Jewell**,
Communications Division, and
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Global innovation is a win-win proposition – everyone stands to gain from it. That is the message of the *Global Innovation Index (GII) 2016*, the latest edition of the annual innovation study that WIPO produces in collaboration with Cornell University and INSEAD.

Focusing on the theme of “Winning with Global Innovation”, the *GII 2016* calls on governments to support consistent investment in innovation and research. The *GII 2016* findings suggest that a new corporate innovation culture built around novel partnerships and innovation platforms has significant potential to drive long-term economic growth.

AN AUTHORITATIVE ANNUAL REFERENCE

The *GII 2016* benchmarks the innovation performance of 128 economies representing 92.8 percent of the world’s population and 97.9 percent of global GDP (in current US dollars). The individual performance of each country is evaluated against a broad range of qualitative and quantitative indicators to measure both innovation inputs – what countries are doing to strengthen their innovation ecosystems – and innovation outputs – their performance and results. These metrics are reviewed and updated every year to provide the best and most current assessment of global innovation.

While the *GII* ranks the innovation performance of the countries surveyed, its overriding aim is to generate insights, identify good practices and provide practical support to policymakers and business executives in their efforts to improve innovation performance. Now in its ninth edition, it has become a leading reference on global innovation.

This year’s *GII* highlights the mutual benefits of increased international cooperation for innovation. Global innovation is often seen as a zero-sum proposition, with imports of technology or technology-intensive services perceived as a cost. The *GII* shows, by contrast, that international investment in innovation has huge scope to complement national systems and drive long-term economic growth.

“Investing in innovation is critical to raising long-term economic growth,” explains WIPO Director General Francis Gurry. “In the current economic climate, uncovering new sources of growth and leveraging the opportunities raised by global innovation are a priority for all stakeholders.”

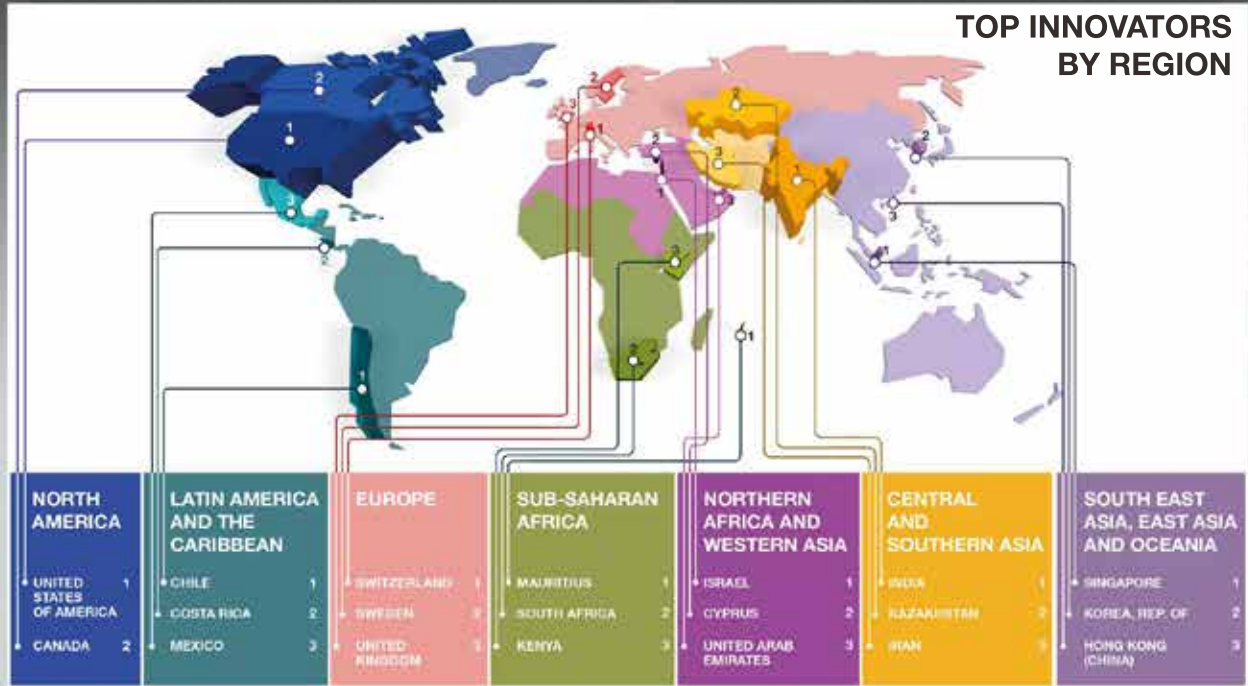
WHO IS LEADING INNOVATION?

THE GLOBAL INNOVATION INDEX 2016

Every year, the Global Innovation Index ranks the innovation performance of nearly 130 countries and economies around the world. Each country is scored according to 82 indicators.

www.globalinnovationindex.org

#GI12016



INNOVATION IS MORE GLOBAL BUT GAPS REMAIN

The *GII 2016* reveals a multipolar world of research and innovation, albeit one where most innovation is still concentrated in high-income and selected middle-income economies.

The top ten country rankings remain largely unchanged from 2015, with Switzerland maintaining first place for the sixth year running. Germany is the only new entry, as Luxembourg, ranked ninth last year, drops to number 12.

But for the first time, a middle-income country, China (ranked 25), joins the ranks of the world's 25 most innovative economies. China's progression reflects the country's improved innovation performance, in particular with respect to the quality of its innovation infrastructure and robust investment in research and human capital, as well as methodological considerations such as improved innovation metrics in the *GII*.

Despite China's rise and a growing awareness among policymakers about the central importance of innovation to economic growth, a significant gap remains between upper middle-income economies and their high-income counterparts. Many upper middle-income economies still depend on technology transfers from high-income economies for solutions to mainly domestic problems, for example in the areas of health and energy.

On a brighter note, low-income economies are continuing to close the innovation divide that separates them from middle-income economies, and some countries outside the top 25 are outperforming their income group. These "innovation achievers" include many economies in Africa, such as Kenya, Madagascar, Malawi, Rwanda and Uganda, and economies in other regions such as Armenia, India, Tajikistan and Viet Nam.

Better technology diffusion to and within middle- and low-income economies, through expanded innovation collaboration, will help to further narrow these gaps.

LEVERAGING GLOBAL INNOVATION TO BOOST GROWTH

The *GII 2016* highlights the central importance of investment in research and development (R&D) and innovation for economic growth. Countries that consistently perform well or are showing improvement in innovation performance all make R&D spending and innovation key priorities.

The challenge is to boost the innovation performance of other economies. How can over-reliance on a handful of countries to drive global R&D growth be avoided? How can R&D be systematically spread to low- and middle-income economies where appropriate innovation is desperately needed?

The report suggests that international collaboration is a major part of the solution. By stepping up public investment in innovation, policymakers can boost short-term demand and improve long-term growth potential. Investing in innovation and expanding global corporate and public R&D cooperation is a win-win scenario. The goal must be to boost global innovation cooperation through more inclusive governance mechanisms that support the diffusion of knowledge and ideas across borders.

The *GII 2016* calls for a new global innovation mindset underpinned by smart, globally oriented innovation policies. This, it argues, will enable companies to benefit from the untapped potential of global innovation while also helping to quell rising sentiments of nationalism and fragmentation.

For policymakers, facilitating increased international collaboration and complementing inward- with outward-looking approaches are central to sustained success in innovation. Similarly, for firms to succeed they must simultaneously build global R&D capacity and develop localized solutions in response to the needs of local customers.

Innovation is a global public good: regardless of who invests heavily in bringing about scientific advances

or innovations, the results often diffuse well beyond borders to enrich other countries. In the same spirit, the national innovation policies of different countries – whose innovators and firms often compete against one another – have largely positive effects.

CREATING SOUND INNOVATION SYSTEMS: NO MAGIC FORMULA

When it comes to creating effective innovation systems there is no “silver bullet” solution. Establishing innovation systems with solid innovation inputs, sophisticated markets, a thriving business sector and robust linkages among innovation actors is a complex process.

And the question of how to create self-perpetuating, organic innovation systems is an enduring dilemma for governments. On the one hand, it is now accepted that governments have an important role to play in generating innovation. But on the other hand, if they overreach, they may inhibit the emergence of self-sustaining organic innovation ecosystems.

Providing enough space for entrepreneurship and innovation, the right incentives and a certain “freedom to operate” that challenges the *status quo* are also part of the equation. Finding the right policy balance has never been more challenging.

PRESERVING THE MOMENTUM IN SUB-SAHARAN AFRICA

For several years, the *GII* rankings have tracked the positive innovation performance of countries within Sub-Saharan Africa, which since 2012 has laid claim to more innovation achievers than any other region. Kenya, Madagascar, Malawi, Mozambique, Rwanda and Uganda – often oil-importing countries – are performing better than their level of development would predict. But this trend is not uniform across the region, nor is there any guarantee that it will continue. If the predicted economic slowdown in Africa occurs, African economies will need to redouble their efforts to maintain the current innovation momentum and reduce their reliance on oil and commodity revenues.

LATIN AMERICA'S UNTAPPED POTENTIAL

Latin America's has significant innovation potential, but the *GII* analysis suggests little progress has been made in realizing it. In the *GII 2016*, Chile, Colombia, Costa Rica, Mexico and Uruguay are the top-ranking countries in the region, but no country or economy in Latin America has been identified as an innovation achiever. Although the innovation agenda remains an important priority, the region has been engulfed by considerable economic turbulence. In this context, it will be very important for these economies to overcome short-term political and economic constraints and to hold fast to their longer-term innovation commitments and results. Greater regional cooperation in the areas of R&D and innovation may help in this process.

NORTH AMERICA

Ranked fourth in the *GII 2016*, the United States remains one of the world's most innovative countries. It shows strengths in the presence of firms conducting global R&D, software spending and the state of

its innovation clusters. Canada, in 15th place, rates highly for the ease of starting a business and online creativity. While both countries score well for the sophistication of their financial markets (including venture capital) and the caliber of their universities and scientific publications, they each show scope to improve economy-wide investment and productivity, which are crucial to future growth.

CENTRAL AND SOUTHERN ASIA

Six of the ten economies within this region have moved into the top 100 in 2016. India, ranked 66, maintains its top position among them. India scores highly for the quality of its universities, scientific publications and R&D, along with market sophistication and ICT service exports, for which it ranks first in the world. Kazakhstan, at number 75, is second in the region, followed by the Islamic Republic of Iran (78), Tajikistan (86), Sri Lanka (91) and Bhutan (96).

NORTHERN AFRICA AND WESTERN ASIA

Among the top five in the region are two of the six economies in the Gulf Cooperation Council (GCC), the United Arab Emirates (ranked 41) and Saudi Arabia (49). This reflects the fact that many GCC countries are diversifying their economies away from oil production to more innovation-driven sources of growth. Israel (21) and Cyprus (31) achieve the top two spots in the region for the fourth consecutive year.

SOUTH EAST ASIA, EAST ASIA AND OCEANIA

All 14 economies within the region figure in the world's top 100 in the *GII 2016*. The top seven of these – Singapore (ranked 6), the Republic of Korea (11), Hong Kong (China) (14), Japan (16), New Zealand (17), Australia (19) and China (25) – are ranked among the top 25 economies. The region's strongest average performances are in the pupil-teacher ratio and in productivity growth. However, the results indicate scope to improve R&D financed by foreign firms, ICT services exports and imports, and IP receipts.

EUROPE

Fifteen of the top 25 economies in the *GII 2016* come from Europe, including the top three – Switzerland, Sweden and the United Kingdom.

Europe benefits from comparatively strong institutions and well-developed infrastructure, but could improve business sophistication and knowledge and technology outputs. Europe does particularly well in environmental performance, ICT access and school life expectancy.

QUALITY IS KEY

The *GII* offers a holistic approach to assessing innovation performance. It moves away from purely quantitative measures to look at the quality of innovation. Quality is a hallmark of innovation leaders such as Germany, Japan, the United Kingdom and the United States.

UN Secretary General Ban Ki-Moon has called the *GII* a “unique tool for refining innovation policies ... for providing an accurate picture of the role of science, technology and innovation in sustainable development.” The lessons from the *GII 2016* will help policymakers and business leaders improve innovation quality around the world.

Adding fuel to Colombia's innovation ecosystem

By **María del Pilar Noriega**, Director General,
Laura Restrepo, Biomedical Engineer and
Laura Moscoso, Lawyer, (ICIPC), Medellín, Colombia



Photo: Courtesy of ICIPC

Colombia's Rubber and Plastic Institute for Training and Research (ICIPC) is playing a key role in the drive to strengthen and expand the country's national innovation ecosystem.

Colombia is Latin America's fourth-largest oil producer. As such, oil and gas have played and continue to play an important role in its economy, catalyzing the development of many downstream industries, including petrochemicals, plastics and rubber used in manufacturing an array of consumer goods.

For over two decades, Colombia's Rubber and Plastic Institute for Training and Research (ICIPC), a non-profit technology development center, has been at the forefront of efforts to boost innovation, increase productivity and enhance the competitiveness of companies operating in the country's plastics, rubber and associated industries. Just three years after it began operations in 1993, ICIPC partnered with COLCIENCIAS, the government's science,

technology and innovation arm, further cementing its role as a key player in Colombia's drive to strengthen and expand its national innovation ecosystem.

ICIPC's mission is to "convert knowledge into wealth", and it has been widely recognized for its success in doing that for the companies it works with. Its extensive experience in generating knowledge and transferring it to the private sector offers useful insights for those engaged in developing and applying successful innovation and technology transfer practices.

ICIPC provides technology solutions to the plastics, rubber and related industries in Colombia and Latin America. To date it has worked with more than 1,200

Photo: Courtesy of ICIPC



Photo: Courtesy of ICIPC

Recognizing the importance of IP to the sustainability of its own business strategy, ICIPC has been actively managing its IP assets since the early 2000s. IP has now become the Institute's largest asset. Examples of ICIPC patented inventions are a bird flight diversion device to stop birds crashing against power cables (top left) and a device to visualize and assess the progress of polymer melting in plasticating machines (top right).

enterprises. More than 700 of them operate in the sector and are based in Colombia's main cities. ICIPC also undertakes state-of-the-art laboratory tests (according to ISO standards) for quality control and assurance in support of R&D and innovation projects, and training programs.

Building an effective and sustainable national innovation system is a multi-faceted, long-term and complex process involving multiple actors. Thanks to a series of political and institutional reforms in Colombia in recent years, innovation and innovative entrepreneurship are on the rise.

The government's staunch commitment to strengthening the country's capabilities in the area of science, technology and innovation (STI), and to ensuring that it improves people's lives, are beginning to bear fruit. In the recently published *Global Innovation Index (GII) 2016*, Colombia emerged as the fifth most innovative economy in Latin America (with a global ranking of 63). But with its sights set on becoming the most innovative country in Latin America by 2025, there is still a great deal to do to expand and strengthen the national innovation ecosystem.

The overriding aims of Colombia's innovation policy are to drive sustainable economic and social development and to improve the wellbeing of Colombians. Success will depend on upscaling the innovation system and ensuring that it responds not only to market demand, but also to social demand for innovation in areas like environmental protection, good quality housing and infrastructure for low-income communities, and improving agricultural productivity. As the world's most biodiverse country per square meter, Colombia's natural resources – with potential applications in health, agriculture, cosmetics and drug development – have huge potential to diversify the country's economy and drive its development.

This will involve focusing on a range of areas including:

- boosting competition and entrepreneurship;
- making more diverse support mechanisms available and targeting sectors with high growth potential;
- increasing the share of business investment in research and development (R&D) to at least 50 percent within a decade;
- skills development, especially in relation to technology transfer and intellectual property (IP);
- improving business-to-business networking;
- better access to external sources of knowledge; and
- strengthening STI institutions and improving the quality and impact of research and knowledge.

Improving technology transfer, promoting STI development as engines of business growth and entrepreneurship, and creating a culture that values and manages knowledge and innovation are central to this process. Only by building awareness among key innovation actors – in particular the private sector and research institutes, but also the general public – about the relevance of IP to their innovative activities will Colombia be able to leverage its strengths and extend them into areas with significant growth potential.

For its part, since 1998 ICIPC has been working with companies across the plastics and rubber production chains in collaboration with the National Service of Apprenticeship (SENA), COLCIENCIAS and Colombia's state-owned entrepreneurial development and export-import bank, BANCOLDEX, to enhance productivity and boost innovation in the sector. This has resulted in significant productivity gains for target companies and several product and process innovations protected by IP rights.

This work has also helped to demonstrate the practical advantages of implementing a robust IP strategy at the company level. Partnering with companies in this way is an effective means of building awareness in business circles of how IP can leverage the economic value of innovation, create new revenue streams and support business development. This is particularly important in a country where levels of IP awareness and IP filing rates are low. Such partnerships also ensure that ICIPC's

research is demand driven, has a practical application and ultimately reaches the market.

Close collaboration between research centers like ICIPC and industry is a win-win situation. It generates much-needed revenues for research centers and ensures that research remains relevant; industry benefits from new ideas and innovation and the public benefits from new and improved products and services.

THE ROLE OF GOVERNMENT

Government of course has a key role in ensuring coherence and effective coordination across the systems of STI and innovation, and COLCIENCIAS has been extremely active in this regard. But if the country is to improve its innovation performance, further investment in STI will be required, as indicated in the *GII 2016* analysis. The availability of mineral royalties to fund expansion of Colombia's innovation ecosystem – STI now receives 10 percent of such royalties – is a big opportunity, but is vulnerable to volatile mineral markets. Ideally, investment in innovation will become a permanent part of the government's regular budget. This would guard against political short-termism and help mitigate the impact on innovation investment of declining mineral royalties.

SKILLS DEVELOPMENT

Improving the quality and impact of research and enabling technology transfer requires a robust system for carrying out high-quality fundamental and applied research plus the skills to transfer that knowledge to the productive sector and society in general. This, too, is an area that COLCIENCIAS and its partners are focusing on. Despite recent improvements, Colombia's STI outputs as traditionally measured (scientific publications, patent and trademark applications) remain well below par. Colombia has 81 universities, but only a small proportion of professors hold a PhD and those who do are concentrated in a small number of elite universities. Improving the quality and range of Colombia's STI outputs therefore remains a tough challenge, but one that we are actively tackling.

External funding opportunities and the government's new focus on research and innovation have boosted national production of PhDs, putting the country on



Members of SECOPIND

Universidad de Antioquia, Universidad Nacional de Colombia, Universidad EAFIT, Universidad Pontificia Bolivariana, Universidad del Norte, Universidad del Valle, Institución Universitaria ITM, CIDET, CECIF, Vidarium, Ruta N, Tecnova, Servicios Nutresa, Sumicol, Argos and ICIPC (Network Hub).

Photo: Courtesy of ICIPC

ICIPC provides technology solutions to plastics, rubber and related industries in Colombia and Latin America. To date it has worked with more than 1,200 enterprises helping them to boost innovation, increase productivity and enhance their competitiveness.



About the Bayh-Dole Act

The 1980 Bayh-Dole Act (Patent and Trademark Law Amendments Act) in the United States deals with the question of ownership of inventions arising from federal government-funded research. The Act allows a university, small business, or non-profit institution to retain ownership of any invention resulting from federal funding. Prior to the Act, such inventions were assigned by obligation to the federal government but very few of them were commercially licensed. The Act facilitates technology transfer, the process of commercializing those inventions, and turning them into new products or services.

track to meet its target of 3,000 PhDs by 2025. We are also seeing an emerging trend among universities to professionalize research management, as indicated by the appointment of a growing number of vice-rectors for research. Modern legislation on IP similar to the Bayh-Dole Act in the United States (see box) has also prompted the creation of technology transfer offices and other specialized functions within universities, although current employment conditions and regulations continue to hamper the creation of spin-off companies.

Skills development is an important focus for ICIPC. In association with Universidad EAFIT, the Institute runs a Program of Specialization in Plastic and Rubber Conversion Processes and a Masters in Engineering of Polymer Processing as well as various short courses, and to date has trained over 10,000 people.

BUILDING IP AWARENESS

In the early 2000s, recognizing the importance of IP to the sustainability of its own business strategy, ICIPC began to actively manage its IP assets and has since acquired significant experience in IP licensing and asset management. Indeed, today IP has become the Institute's largest asset, with more than 50 IP filings covering multiple IP rights. The Institute has also strengthened its research, development and design services, offering prior art patent searches and developing technology transfer and innovation methodologies.

ICIPC is committed to building an outward-looking research culture that is prepared to think creatively about how to tackle challenges, including ways to maintain research funding and develop a network of partnerships to expand research opportunities. As such, it is ideally placed to lead the SECOPIND IP hub, a network of 16 academic and industrial members (see p. 29) established in 2008 with the support of COLCIENCIAS.

In this role, ICIPC is working to promote innovation and IP awareness and to facilitate technology transfer from universities and research institutes to the private sector. While large companies can access world science directly, many smaller companies can do so only by partnering with local universities and research institutes, hence the need to improve the quality of their research outputs. These institutions have a key role to play in helping companies to increase their internal innovation and IP capabilities over time. Our own experience mirrors international findings that leveraging relationships with graduates as they move into industry is a powerful way to increase the absorptive capacity of companies and to exchange knowledge. Graduates are invaluable prospective partners for future joint research and innovation projects.

By bringing key innovation actors together, SECOPIND is able to pool resources to secure access to a range of shared specialist IP services, including for prior art patent searches, proof of concept, IP valuation and technology transfer and commercialization. The network also supports training programs and brings much-needed critical thinking to the field of IP in Colombia.

By the October 19, 2015, the SECOPIND IP network had filed 323 patent applications and the aim is for the country as a whole to file 1,000 patent applications per year by 2025. While the network boasts a rich and expanding patent portfolio, how to bring these technologies to market is proving a key challenge, as only 20 percent of them are licensed out. This, we hope, will improve as innovation and IP become more deeply embedded in Colombia’s business culture.

While expanding and strengthening Colombia’s innovation ecosystem in support of sustained economic and social development remains a complex challenge, and much still remains to be done, the future holds great promise. The country’s growth rates, its abundant natural resources, a rich pool of talent, the commitment and declared innovation goals of government and the country’s recent peace deal are all reasons for optimism.



Photo: Courtesy of ICIPC

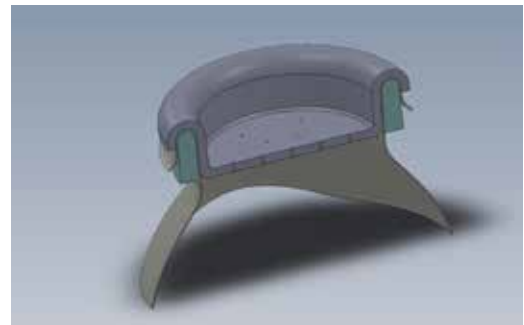


Photo: Courtesy of ICIPC

ICIPC has more than 50 IP filings covering multiple IP rights. Examples of some of its patented inventions include: a compostable device for hydrating fresh cut flowers (top right) and packaging for a breathable valve for packaging and prolonging the life of perishable products (above).



Photo: Courtesy of ICIPC

A device (and method) to determine the thermal diffusion of materials such as thermoplastic polymers, during non-stationary heat transfer processes. The device is used to optimize injection molding processes (left).

The role of intellectual property in the battle against malaria

By **Sylvie Fonteilles-Drabek**, Executive Vice-President and Head of Legal, **Jaya Banerji**, Director of Communications and Advocacy, and **David Reddy**, Chief Executive Officer, Medicines for Malaria Venture (MMV)



Photo: Anna Wang/MMV

Commercial drug research and development (R&D) requires serious investment yet promises uncertain returns. By at least one estimate (The Tufts Center for the Study of Drug Development), the average cost of developing a new drug has risen more than three-fold in 13 years – from USD 802 million in 2001 to USD 2.6 billion in 2014. This figure factors in the cost of the many unpredictable failures along the way – more than 90 percent of drug candidates that reach clinical testing will fail. Even without accounting for the cost of capital, or of failure, the numbers still reach into the hundreds of millions per new drug.

So research costs are high, but if a drug succeeds, returns on investment can be huge. Successful blockbuster drugs, though not too common, generate sales of more than a billion dollars annually (see www.ibtimes.com/11-blockbuster-drugs-watch-2015-1857100). It is therefore not surprising that R&D is driven and shaped by the worldwide legal recognition and protection of patents for compounds, processes and products, as these will confer on patent owners the right to prevent others from

MMV uses IP strategically to ensure that the antimalarial drugs it develops with partners reach the people who need them, even the very poor.



Photo: Elizabeth Pohl/MMV

MMV provides malaria drug development expertise to its partners, and also supports joint R&D projects with funds raised from government and philanthropic sources, thereby “de-risking” the collaborative endeavor and de-linking R&D expenditure from price.

making and selling the patented product, and allow them to recoup their significant investment. Once drugs lose patent protection, companies lose control over production, because most drugs are easy to copy and can be marketed for a fraction of the originator price. The price of the cholesterol-lowering drug Lipitor, for example, recently fell by 95 percent in the face of generic competition.

Logically in such a system, the cost of developing a new drug has been too high for any substantial innovation for Type III diseases which are overwhelmingly incident in developing countries. The return on investment for these diseases is close to zero because patients cannot afford to pay high prices for the drugs they need. While this lack of innovation was largely true until the late 1990s, when the antimalarial drug pipeline was virtually empty, a look at today’s global antimalarial portfolio shows that there are over 40 antimalarial projects either in the preclinical or clinical phases, or already approved by stringent regulatory authorities and registered. All of these drugs are developed with a strict eye to costs — with prices set at a level affordable for all public sector health services, and with distribution requirements suited for all endemic countries.

The vast majority of these projects are the result of a partnership between a pharmaceutical company and Medicines for Malaria Venture (MMV), a product development partnership.

MMV’S PARTNERSHIP MODEL

MMV was created to fill the gap left by market failure due to lack of drug research for malaria, a disease whose victims cannot afford quality treatment. When launched in 1999, MMV had one single goal – to work with partners, from both public and private sectors, to discover, develop and deliver new and effective antimalarials at the lowest prices practicable; in other words, to cure and save the lives of the most vulnerable. It remains focused on this goal.

The only way MMV could make a difference to the malaria burden was by building strong alliances.

MMV not only provides malaria drug development expertise to its partners, it also supports joint R&D projects with funds raised from government and philanthropic sources, thereby “de-risking” the collaborative endeavour and effectively de-linking R&D expenditure from price. Today it has a global network of more than 400 committed research and policy partners.

With partners, MMV is keeping the drug pipeline populated with promising new molecules and has jointly brought forward six new quality antimalarials for adults and children, and two drugs developed by DNDi (the Drugs for Neglected Diseases *initiative*) are now also in the MMV portfolio. Three hundred million treatments of Coartem®*Dispersible* for children, developed with Novartis, have been delivered to 50 malaria-endemic countries since its launch in 2009, at an affordable USD 0.38 for the youngest patient. Furthermore, some 53 million vials of Guilin Pharmaceutical’s



Photo: Pierre Hugo/MMV

MMV was created to fill the gap left by market failure due to lack of drug research for malaria, a disease whose victims cannot afford quality treatment. It works with public and private sector partners to discover, develop and deliver new and effective low-cost drugs to cure the disease and save the lives of the most vulnerable.

artesunate injection, Artesun®, have been delivered to treat severe malaria, saving an estimated additional 300,000-350,000 lives compared to quinine treatment.

None of this would have been possible without MMV's extensive partnerships, partially governed by a pragmatic approach to intellectual property (IP). MMV has developed an effective strategy that leverages the power of IP and ensures that the antimalarials it develops with partners reach the people who need them, even the very poor.

A DUAL STRATEGY FOR THE DOUBLE-EDGED SWORD OF IP PROTECTION

Developing a new drug and deciding to protect its IP is not merely about investment or protecting returns, it is about saving lives and alleviating suffering. That is why drug development is subject to emotional, social and ethical scrutiny. In the pursuit of its public health goals, MMV typically renounces the primary advantages offered by IP of profit and protection, and finds its value elsewhere.

In MMV's partnership model, research is conducted with varying degrees of openness depending on the stage of research.

OPEN DRUG DISCOVERY

During early-stage research, MMV's perspective on IP is relatively open. It currently uses three lines of action, Open Source, Open Access and the preferred model of Open Innovation.

Open Source: In 2011, MMV launched an Open Source Drug Discovery programme in which research is reported, and thus shared, openly, online and in real-time, allowing all researchers working in that area to contribute to and accelerate science and drug development. As a result, molecules are being made for malaria drug research.

Open Access: In this approach, data, compounds, and publications are made available to researchers to maximize their use across diseases. MMV's Malaria Box is a prime example, offering researchers a cost-free opportunity to screen 400 antimalarial compounds against other diseases. Researchers have found hits against 16 different protozoa, seven helminths and other bacteria. The success of the Malaria Box has led to the Pathogen Box, which offers 400 molecules with activity against one of a range of neglected diseases. In both cases, MMV requests that resulting data are placed in the public domain.

Photo: ElizabethFoll/MMV



MMV with its partners is keeping the drug pipeline populated with promising new molecules.

Photo: Kim van der Weijden/MMV



According to UNICEF over one million people die from malaria each year, mostly children under five years of age, with 90 percent of malaria cases occurring in Sub-Saharan Africa. An estimated 300-600 million people suffer from malaria each year.

Open Innovation: Over the years MMV has built a community that shares data and assays among a set of partners. The projects operate within contractual “bubbles”, with a semi-permeable membrane securing confidentiality that allows for the key partner to generate IP and file a patent. If academia is involved, IP can be co-owned by MMV and academic partners and, if needed, MMV can secure an exclusive, worldwide, royalty-free, sub-licensable license to pursue the development of the compounds. In some cases, all IP rights are assigned by academia to MMV. If a Pharma partner is involved, it tends to assume ownership but it commits to granting MMV an exclusive, worldwide, royalty-free, sub-licensable license in the field of malaria in the event it withdraws from the collaboration. In this model, risk, cost and effort are shared among the partners. Since 2010, MMV’s Open Innovation collaborations have delivered a strong pipeline of 17 new candidate molecules for malaria.

PROTECTED DRUG DEVELOPMENT

Moving to the more complex drug development activities initiated by MMV, the approach changes and patent protection may be sought if the compounds show a new mechanism of action (composition of matter, method of use) and appear particularly promising.

If MMV is already collaborating with a pharmaceutical partner (a candidate may have emerged from the screening of a partner’s library, for example), the pharmaceutical partner will decide on a patent strategy. If MMV has generated promising candidate compounds with academia and is pursuing the development alone while searching for a pharmaceutical partner, it will almost always seek patent protection for its candidates, thereby increasing the value of its “assets”. The majority of antimalarial candidates currently in MMV’s pipeline (translational and development stages) have clearly defined IP ownership and are patent protected either by MMV or its partners.

Value allocated to the IP will facilitate the negotiation of collaboration agreements with pharmaceutical partners, whose skills and experience in taking drugs through trials and registration to the market are essential. The mutual understanding, however, is clear: antimalarial products emerging from an MMV-Pharma collaboration must be affordable (*sine qua non*) and pharmaceutical partners will operate on a “no-profit, no-loss” basis (with third-party audit to verify cost structure). Things are equally clear regarding the patent strategy: patent protection does not extend to malaria-endemic countries (with the exception of India, China and Brazil). The protection is primarily sought in the “large economies” of the world, in case the compound has application outside the field of malaria for a more lucrative indication. The other reason protection is sought is to provide an element of control over the quality of the manufacture of the products. To meet its public health goal of developing efficacious and affordable antimalarials for vulnerable populations, MMV may use its patent protection as a deterrent to the production of suboptimal antimalarials.

At MMV, IP is valued and used strategically to fulfil its public health mission. It often serves as a tool to attract industry partners, an incentive to conduct research and a guard against misuse of innovation. In the effort to bring quality, innovative treatments to malaria sufferers, MMV’s IP policy has evolved into a dual strategy, successfully combining the strengths of the Open Innovation approach and IP protection.

iQIYI on China's booming online film market

By **Catherine Jewell**,
Communications Division, WIPO

China's online video sector is booming. In the first quarter of 2016, revenue from it rose to CNY 12.23 billion (approx. USD 1.84 billion) – a phenomenal year-on-year increase of 81.5 percent according to iResearch.

With over 20 million subscribers, in just six years iQIYI has become a key player in China's rapidly evolving digital landscape. A high-tech company operating in the entertainment and culture business, iQIYI is pushing the boundaries of China's online film market. It currently provides over 30 different types of content – including film, TV series, cartoons, sport and news – and is busy building a new digital ecosystem that is already creating opportunities for new types of content creation. **Xianghua Yang**, iQIYI's Senior Vice President, explains what the company is doing to connect users with an expanding range of content and outlines its ambitions for the future.

Video-streaming in China has enjoyed explosive growth in recent years. How do you explain this?

There are three main factors. First, the rapid uptake of mobile phones and smartphones – there are now around one billion mobile or smartphone users in China. Second, Internet bandwidth has improved. Since 2009, 4G mobile networks have been deployed across China. And third, the growing popularity of mobile payment systems such as Alipay and WeChatPay among Chinese users has made it easier for users to access and pay for content online.

Can you tell us about iQIYI?

iQIYI is a combination of a high-tech and a creativity company. We carry content from all around the world. Almost half of our films are Chinese but we buy a lot from the United States, Europe, India and other Asian countries. Most TV series are Chinese but we also buy in content from the Republic of Korea and the United States. We have over 30 different channels and provide 30 different kinds of content. We are very busy! We also create our own original content. For example, iQIYI Motion Pictures, established in 2014, produces films for cinema release. It has produced 10 films to date. Our Internet Film Center, established last year, produces Internet-only films – around 20 a year. And the iQIYI Cartoon Company focuses on animations and has produced three original cartoons so far. The company employs around 4,000 people. Our headquarters is in Beijing and we have offices in Shanghai and ten other cities across China.



With over 20 million subscribers, in just six years iQIYI has become a key player in China's rapidly evolving digital landscape. *The Mystic Nine* was a big hit for iQIYI this summer.



What business model does iQIYI use?

Since our launch in 2010 we have been creating and testing new business models. At present we operate both a freemium model, which is supported by revenue from advertisements, and a fee-based subscription model. Our freemium model has over 250 million daily visitor users. And our subscription business had 20 million paying users by June 2016. We hope to increase that number to 60 million over the next three years. But it is quite difficult to persuade online users to pay for content when they are used to getting it for free. That is why we have to offer our fee-paying subscribers the best possible viewing experience and instant ad-free access to a diverse range of high-quality content. We also have an online gaming platform which launched in 2013 and have developed various film-related online games for distribution through our mobile apps.

Can you tell us about the role of intellectual property (IP) in your business?

As a provider of a premium content service over the Internet, IP is at the heart of our business model. It has underpinned our business operations from day one. We spend a lot of money on acquiring content from other companies and on producing our own original content, so IP protection is very important to us.

Copyright is something we really care about. As a company, we are committed to doing much better than those with pirated content. iQIYI believes that the best way to beat the pirates is to provide high-quality content to users more easily and more cheaply than they can, and to make sure our users have access to the latest films.

Things have changed a lot in the past 20 years. When I was growing up, young people in China could not afford to spend even CNY 5 (USD 0.75) on a film and so were prepared to spend two hours looking for a pirated version. These days, young people – 60 percent of our users are aged between 19 and 30 – would rather pay CNY 5 to watch a film online than to spend two hours

on the Internet looking for a pirated version. What users really care about and are willing to pay for is being able to get access to high-quality content cheaply – and that is what we aim to deliver.

And innovation?

Innovation is very important to us. We have a strong research and development (R&D) team and have pioneered a number of innovations since we launched in 2010. At that time, almost all online video companies provided low-quality content to keep bandwidth costs down. But from the outset, iQIYI has provided high-quality content in high definition. For example, we were the first to launch a 1080p (full HD) service in China. We were also the first to develop a mobile app for premium content (including films and TV series) in China. Today, 65 percent of our users use a mobile phone to watch videos online. TV series are by far the most popular form of mobile content, followed by cartoons and animations and films up to two hours long.

We are constantly looking for new business opportunities and a chance to launch new technologies and services.

What role does big data play in iQIYI's video-streaming business?

We have been using big data to make our content acquisition more effective. It enables us to find out what our users like viewing and predict the traffic that different types of content are likely to generate. We also use big data to enhance our viewers' experience and make content recommendations on the basis of their preferences, feedback and viewing history.

Can you tell us more about the ecosystem you are creating for digital content?

Over the past three years we have been testing ways to distribute more films over the Internet. In China, more than 600 films are made each year, but only around 300 of them make it to movie theaters. Many talented



Photo: Courtesy of iQIYI

The Descendants of the Sun, a Korean online drama, was broadcast simultaneously in the Republic of Korea and on iQIYI's streaming platform between February and April 2016. The show proved to be a huge success in the Chinese market, significantly boosting the iQIYI's paying subscriber numbers.



Photo: Courtesy of iQIYI



Photo: Courtesy of iQIYI



Photo: Courtesy of iQIYI

In 2015 iQIYI distributed over 600 films over the Internet and in 2016 it is on track to distribute more than 200 movies per month, including its recent online drama, *With You* (above).

filmmakers don't have an opportunity to produce movies. That's why we started building a new ecosystem to share movies over the Internet. This approach is giving many talented, well-educated and highly skilled young professionals and small companies an opportunity to produce films and to make money from their work. Production costs are lower – some have made films for less than CNY 100,000 (approximately USD 15,000) – the filmmaking process is shorter, and more people get to see these works because the platform's user base is much larger than that of traditional TV stations and cinemas. This really is a great opportunity to encourage young people to become real filmmakers. After all, if these people don't get a chance to make their first movie, they won't have a chance to make a great movie. We are very open and we work with anyone who wants to work with us. The only limitations are that the content must run for no more than 60 minutes and must respect local government laws and regulations.

In 2015 we distributed over 600 films over the Internet, and in 2016 we are on track to distribute more than 200

movies per month. This part of our business currently accounts for around 20 percent of our subscription revenue.

We are the first to launch this type of service in China and it has really taken off. Even in Hunan Province, best known for agricultural production, more than 30 companies have been established to produce Internet-only films. It's amazing.

How do young content providers who use your platform make money?

In all systems, every part of the value chain has to make a return on investment. iQIYI provides an online platform that creates links between users and good content. Currently, the return on creative content depends on the reaction of the market. We have a good mechanism that allows good works to be seen by large audiences. If users like what they see and are willing to pay for it, content providers will get a good return. Through our revenue-sharing scheme, between 50 and 70 percent

of revenues are shared with the content provider. Cinema distributors only offer a 43 percent return, so we offer content providers a very good deal.

Is social media helping to promote user-generated movies?

Social media is very important for movie distribution in China. In the past, only movies featuring big stars produced by big companies got any exposure, but thanks to social media many smaller movies have become very popular. When someone likes a movie and talks about it on social media, it can really help to promote a movie.

What is the average cost of making a TV series?

In China, the average budget for a TV series is about CNY 2 million (approx. USD 302,000) per episode. But when we produce original content, we usually pay around CNY 5 million (USD 754,000) per episode because our reputation for delivering high-quality content is what attracts new users and maintains the interest of our existing customers.

Some say that the quality of content has gone down in the digital environment. Do you agree?

High-quality content is still being produced every year both in terms of TV series and films. Many types of content are being released on the Internet, including low-quality content, so it looks like the amount of high-quality content is declining, but it is still there.

What are the key challenges facing online video-streaming platforms like iQIYI?

The biggest challenge is to provide more and more high-quality content at a time when the cost of content is rising. We are making more money from our online services but we have to spend more on securing and producing content. A lot of our budget is spent on securing third-party content.

What's next for iQIYI?

The future is looking very good. Our long-term goal is to provide more and more high-quality content at ever lower cost. We also want to reduce the time it takes our users to find the high-quality content they want.

What is your favorite film?

Transformers: The Movie. When I was growing up the Transformers cartoon was very popular in China, so it's my favorite film.

Branding the fragrances of the Orient: an interview with Amouage

By **Catherine Jewell**,
Communications Division, WIPO



Photo: Amouage

Amouage's factory in Muscat.

Perfumery – the art of blending fragrant essential oils and aroma compounds – has been an enduring part of Omani culture for thousands of years. Today, Oman is home to Amouage, one of the world's most prestigious perfume houses. Established in 1983 by His Highness Sayyid Hamad bin Hamoud al bu Said, Amouage has become known as an accomplished, sophisticated and opulent perfumer.

Rabin Chatterjee, Amouage's Financial Controller, discusses the company's aspirations and the role that intellectual property (IP) rights play in supporting its long-term commercial ambitions.

What prompted the establishment of Amouage?

The vision of His Highness Sayyid Hamad bin Hamoud al bu Said was to introduce Oman's heritage in the area of perfumery to the world and to produce a world-class perfume that encapsulates the unique fragrances of the Orient, particularly those of Oman. Attars, perfumes

or essential oils obtained from flowers, and oud, also known as agarwood, a dark resinous wood with a distinctive fragrance, have been a part of Omani culture for over 2,000 years. These fragrances continue to play an important role in contemporary Omani culture. His Highness employed one of the world's best perfume producers, known in the trade as "noses", Guy Robert, to create Gold, our first fragrance. No expense was spared in developing it. In fact, Guy Robert considered it to be his crowning glory. Amouage Gold remains very popular and is one of our most expensive perfumes. While Amouage is now very much an international luxury brand, it is still rooted in the Orient.

How many fragrances are sold by Amouage?

Today, we have 38 branded fragrances. Each perfume is a new creation and tells a story. We believe that creativity and originality are the pillars of our success. We use the best and often the rarest ingredients – both natural and synthetic – and our overriding focus is to develop

“Amouage is all about creativity and originality. Without IP rights it is impossible to sustain creativity.”



Photo: Amouage

Christopher Chong, Creative Director at Amouage (above) is responsible for conceptualizing and developing the brief for each perfume and for outlining its characteristics.

a fragrance that is something really beautiful, special and unique. We believe that our products have the highest level of perfume concentrate of any fragrance in the world.

How long does it take to create a new fragrance?

It takes around 18 months to develop a perfume. Our Creative Director, Christopher Chong, is responsible for conceptualizing and developing the brief for each perfume and for outlining its characteristics. He works with world noses from Grasse, Paris, New York, Geneva and beyond to develop it. They interpret the brief and submit samples. These can include up to 250 individual fragrances. There are many permutations; new ingredients are added, others are refined, reworked or deleted. We use only the highest-quality ingredients to produce our fragrances, and cost only becomes an issue when the final fragrance is chosen. This allows for maximum creativity and improves our chances of coming up with something really special. When the selection has been narrowed down to two or three fragrances for each gender, they are submitted to our CEO, David Crickmore, and Christopher Chong, who decide which perfumes to launch and what they should be called. For the past 10 years we have been launching two new fragrances per year, one for women and one for men, and one for our Library Collection. This is like the “haute couture” of perfumes and was developed to express the true mastery of perfume creation.

As a high-end, luxury brand we do not produce huge volumes of fragrances. But we sell them in 66 different countries around the world. Oman is our biggest market, but we also do well in Russia, Saudi Arabia, the United Arab Emirates and the United Kingdom. In recent years we have expanded our product range. It now includes bath products, home collections, perfumed candles and leather goods. We are also planning to move into accessories such as jewelry, opticals and other accessories.



Photo: Amouage



Photo: Amouage

Amouage's visitors' center in Muscat.

Amouage has recently expanded its product range to include bath products, home collections, perfumed candles and leather goods.

Why is intellectual property important to Amouage?

Amouage is all about creativity and originality. Without IP rights it is impossible to sustain creativity. In the perfume business creativity is a must if you want to stand out and inspire new trends. We always have to keep an eye on creativity and innovation. Any brand that stops doing that stops! So IP is very important to us. We mainly use trademarks and industrial design rights to protect our products both nationally and internationally.

Our name, Amouage, is a combination of the French word for love, "amour", and the Arabic word for wave, "أمواج" (Amwaj). It reflects the emotion that our perfumes evoke as well as the character and tone of our brands, which merge Eastern and Western ingredients to create beautiful international fragrances.

Industrial designs protect our bottles and packaging. The indented sides of our bottles give the impression of a wave. The shape of our female fragrance bottles echoes that of the Palace Ruwi Mosque in Muscat, while the bottles of our fragrances for men are shaped like a khanjar, Oman's traditional dagger. The company's logo on the front of the bottles is reminiscent of the royal seal.

The way our products are designed and packaged is extremely important for the image of our brand. While our bottles are made industrially, our perfumes are packaged by hand. The packaging is actually a work of

art, and gives our perfumes an exclusive touch. We also ensure that all those involved in selling our products are well trained as this too is an important part of building up our reputation as an exclusive luxury brand.

Over the years, Amouage has invested strongly in building its brand recognition around the world, so it is essential that we protect it from illegal use by infringers. IP helps increase the value of our business and supports our efforts to bring Omani heritage to the world.

What lessons have you learned in developing your IP strategy?

Although protecting our IP assets is an expensive and complex affair, it is essential to the well-being of our business. Our experience underlines the importance of being proactive in registering our IP assets in all markets, both those in which we currently operate and those we plan on entering in the future. If we don't register our trademarks then someone else will and our business will suffer. That is why IP is so central to the development and launch of our products. IP awareness is very high in the company. We are very proactive in protecting our IP assets and even protect pipeline products that are still some way from commercialization in prospective markets, to avoid any problems at launch.

IP helps us to maximize our return on investment and minimizes the risks of free-riding. Much of the value of IP rights, however, depends on our ability to enforce them.



Photo: Amouage

Frankincense and rose oil have been widely used in perfumery in Oman for thousands of years. Amouage blends a range of such high-quality ingredients to develop its fragrances.



It takes around 18 months to develop a perfume. Amouage currently has 38 branded fragrances. "Each perfume is a new creation and tells a story," says Rabin Chatterjee, Amouage's Financial Controller.



Photo: Amouage

“IP helps to maximize our return on investment and minimizes risks of free-riding.”

We have registered our marks in all jurisdictions in which we trade and are therefore in a stronger position to successfully pursue infringers. Although it can be extremely costly, we make a point of actively pursuing infringers.

As we expand, we will continue to protect our IP assets in new markets. It is expensive and requires careful planning, but we cannot think of doing business without IP. It increases our business value and helps to strengthen our credibility and stature in the global perfume market.

What challenges are you facing as a luxury brand?

Controlling fake products is one of our biggest challenges. We take legal action when possible, but the people selling the fake products are often not those driving that illegal trade. Identifying and tackling the main culprits is very difficult.

Frequently, we have problems with certain distributors who for a kickback sell a small amount of our product to non-affiliated retailers, who then sell our perfumes at knockdown prices. This is really hampering our market and damaging the interest of our *bona fide* retailers and distributors – and, of course, our customers. It is damaging our reputation and our brand. To address the problem, each bottle of perfume now carries an indelible code which allows us to track each shipment. When we hear of a scam, we buy all the products and know exactly who handled it. Distributors that re-export to unauthorized retailers are blacklisted. We are also

working with law enforcement authorities and government entities, and with their help we are often able to track the offenders and stop their businesses. But it really is a big and growing challenge.

What does the future hold?

Amouage has become a unique, high-end luxury brand with international appeal. Omanis love our products, as do an increasing number of consumers around the globe. Today, Amouage employs around 250 people and has 20 stand-alone shops in major cities worldwide. In the coming years, our aim is to double in size. To help boost our brand recognition, we are working to expand our presence among top luxury retailers. We are also continuing to expand our product range and are planning to break into new markets such as China, Japan and the Republic of Korea. So there is still a lot to do. But one thing is sure: IP will continue to be central to our business strategy for many years.

Brands of Moldova: a cut above

By **Octavian Apostol**, Director General, and **Liliana Vieru**, Head of the International Cooperation and European Integration Division, the State Agency on Intellectual Property (AGEPI), Republic of Moldova



Photo: Courtesy of AGEPI

For years Moldova has worked behind the scenes to produce the collections of some of the world's leading fashion brands. The "From the Heart – Brands of Moldova" campaign is helping to transform the country into an internationally recognized producer of high-quality fashion goods in its own right.

Fashion is perhaps not the first thing that comes to mind when one thinks of the Republic of Moldova. But for many years now, this small, landlocked European country has been working behind the scenes to produce the collections of some of the fashion world's leading brands – Armani, Calvin Klein, Dolce&Gabbana and Prada, to name just a few.

In the post-war years, Moldova's textile and apparel sectors emerged as a leading producer of light goods in the Soviet Union and one of the most important branches of the national economy, accounting for around 60 percent of GDP. Following the collapse of the Soviet Union and Moldova's independence, the sector fell into decline but today it is at the forefront of the country's private sector development and is thriving.

THE CHALLENGE: TRANSFORMATION

For much of its history, Moldova's light goods industry has been built around low-value "cut and make" services (*Lohnarbeit*), with companies working under contract for large fashion houses, often with modest returns. While this model remains widespread, the landscape for light goods in Moldova is rapidly evolving.

In recent years, faced with the need to create jobs, stimulate economic growth and boost exports, the Moldovan Government has identified the light goods industry as an important area for development. Indeed, the sector was a key element of the Government's Industrial Strategy (2008-2014).

The Textile, Apparel, Footwear and Leather Goods (TAFL) Industry in the Republic of Moldova – 2014 figures

- 20.4% growth since 2013
- 14.3% of GDP
- 20% of export volumes, of which 86% to the European Union
- 23,000 employees, 90% of whom are women
- Over 600 enterprises active in the sector.

A highly skilled workforce, a moderate need for investment, proximity to the European market and the existence of a professional training system made it an ideal candidate to help drive the country's social and economic development program. The aim has been to rebrand Moldova's light goods industry and transform it into an internationally recognized producer of high-quality fashion. The challenge has been to encourage the country's textile and apparel companies to start adding value to their work by developing their own original-label products and thereby to expand their market share and increase profitability.

This was not without its difficulties. Helping companies to move away from "cut and make" services is a complex and risky process. Moving into the production of own-label goods raises a range of new challenges. Companies need to secure raw materials at competitive prices, strengthen their design and production capacities and invest in new technologies as well as strengthening their sales and marketing skills and building effective distribution and marketing networks. And of course they need to develop an effective branding strategy.

DRIVING THE SHIFT TO HIGH-VALUE OUTPUTS

In line with Government policy, a public-private partnership "From the Heart – Brands of Moldova" was launched in 2012 to transform the sector into a high-value producer of competitively priced, quality fashion goods. The partnership included the Association of Light Industry Employers (APIUS) and the Government of Moldova (the Ministries of Economy and Culture) with the support of the United States Agency for International Development (USAID), which was the main donor-partner through its Competitiveness Enhancement and Enterprise Development (CEED II) Project.

The project used the umbrella brand "From the Heart – Brands of Moldova" to boost the prestige of Moldovan-made textiles and make them more easily recognizable. In so doing, it focused on three main areas. Entrepreneurs were trained to identify, protect and manage their intellectual property (IP) assets (designs, trademarks, etc.). They also learned how to develop, commercialize and promote their brands, and how to increase sales and investment and become more competitive. A second focus was on building awareness among Moldovan consumers about the desirability and value of homegrown brands. And the third, and perhaps most challenging, area involved encouraging manufacturers to adopt production schemes that enabled them to produce their own high-value brands.

The project kicked off with a comprehensive communications campaign using traditional and online media. Local companies face tough competition from well-known foreign brands at home, so it was important to promote Moldovan-made products among consumers, to highlight their quality and value and change consumers' perceptions. Twelve companies participated in the first campaign, which highlighted three key messages: "Brands of Moldova" can compete with imported brands on quality and price; buying local brands supports domestic producers and the national economy; and wearing them is a source of national pride.

And it worked. The campaign was a resounding success. Every dollar spent on promotion generated USD 65 in sales. Ten additional companies joined the next campaign, which soon turned into a biannual event with spring and fall fashion shows.

The First Moldova Spring Fashion Walk in 2012, organized with the support of USAID, proved very popular,

attracting leading personalities, entrepreneurs and politicians. It featured seven local brands. But just three years later, at the event's seventh edition, 35 fashion brands presented their "Made in Moldova" collections.

COMMERCIAL PLATFORMS EMERGE

The enthusiasm generated by the project and its huge success has encouraged a growing number of apparel companies to develop their own brands and sell them on commercial platforms. The first such platform involving companies operating under the "From the Heart – Brands of Moldova" brand opened for business in December 2012 with 13 participating companies.

The platform's aim was to bring Moldovan companies under one roof to create a common space for the sale of high-quality Moldovan goods, and to promote best practices in the areas of branding and merchandizing. Today, more than 65 shops are selling own-label goods under the "Brands of Moldova" umbrella brand, and customers can now benefit from a discount loyalty card to purchase these goods.

The "Brands of Moldova" campaign has helped to establish around 70 new domestic brands and is transforming consumer perceptions of Moldovan-made apparel. "From the Heart – Brands of Moldova" is now a registered trademark that may be used by all project partners seeking to strengthen recognition of their products.

Moldova's State Agency on Intellectual Property (AGEPI) has been actively supporting the project, in particular by training participating companies in the use of the IP system to protect their brands, designs and other IP assets. Between 2012 and 2015, 31 new trademarks were registered. Up to 2015, around 140 products had been protected by some form of IP right by participating companies.

With the exception of the company Ponti, which owns 65 registered trademarks, most producers market their products under one or two trademarks. The tendency is for bigger companies with a high proportion of export sales to register their marks under WIPO's Madrid System for the International Registration of Marks, while smaller companies tend to protect their rights domestically.

By the end of 2015, sales of assisted brands in Moldova had grown by 34 percent in three years, with orders worth USD 7.4 million

"From the Heart – Brands of Moldova" Achievements

- Low-value, cut and make services have fallen to 80% of the sector.
- Assisted brands have secured sales worth USD 7.4 million in the domestic market.
- Companies registered a 34% increase in net sales over three years.
- More than 30 companies have increased their productivity by 15-20%.
- 70 domestic brands have emerged.
- 31 new trademarks have been registered.
- Local companies now export to more than 10 foreign markets.
- More than 65 new shops have opened in the Republic of Moldova selling local brands.
- Over 60 companies have been assisted by the project.
- Over 700 people have been trained, 81% of them women.
- Every USD 1 invested in the promotion campaign has generated USD 65 in sales.



The “From the Heart – Brands of Moldova” campaign has been a resounding success helping to establish around 70 new domestic brands and transforming perceptions of Moldovan-made apparel.





In September 2015, Moldova’s first center of excellence for design and technology, ZipHouse, opened. Its aim is to give young designers and fashion professionals access to the training, equipment and technology they need to get a foothold in the country’s dynamic fashion industry.



The “From the Heart – Brands of Moldova” project is opening up employment opportunities for women especially those living in rural areas. It is also supporting the development of micro-businesses run by young entrepreneurs.



in new domestic sales. Each company participating in the project was able to gain know-how in the areas of branding, design marketing, manufacture and technology. This has helped to increase their efficiency, product quality and profitability. More than 30 companies are now exporting branded Moldovan apparel to over 10 foreign markets; three of them are among Moldova's top exporters.

The project has also attracted additional support from development partners in the form of access to credit facilities and advice on ways to improve business performance. For example, thanks to a loan from USAID's Development Credit Authority Program, which supports small business development, in 2014 the small family company Zivazi Maxi was able to reposition its brand and triple its sales.

Other side-benefits include greater consolidation within the sector, which for many years was highly fragmented and lacked a strategic vision. APIUS has emerged as a strong and respected industry voice and an important driver of the sector's evolution. Since its establishment in 2006, its membership has quadrupled and its mandate has expanded significantly as it works to create concrete opportunities for commercial development at home and abroad.

In September 2015, APIUS, the Moldova Technical University and the Government of Moldova, with the financial support of USAID, opened the ZipHouse, the country's first center of excellence for design and technology. ZipHouse gives young designers and fashion professionals access to the training, equipment and technology they need to get a foothold in the country's rapidly evolving fashion industry. Its aim is to bridge skills gaps, foster innovation and cultivate entrepreneurship to safeguard the sector's future growth and sustainability.

FAR-REACHING BENEFITS

The socioeconomic benefits of the "From the Heart – Brands of Moldova" project are far-reaching. It is opening up opportunities for women, especially those living in rural areas – over 90 percent of people employed in

Moldova's light industry sector are women. And in targeting small or micro-companies run by young entrepreneurs, it is creating new opportunities for employment and business development and nurturing the sector's future growth.

By 2014, the sector accounted for around 15 percent of the country's GDP. While "cut and make" services are still common, their share of total output is declining, falling from 95 percent in 2005 to 80 percent in 2014. The sector now employs some 23,000 people and the value of manufactured textiles and apparel is rising, from EUR 33.8 million in 2010 to around EUR 197.8 million in 2014.

While much has been achieved – the sector can now compete on price, quality and lead times – there is still a great deal to do in terms of accessing new markets, increasing international competitiveness and building international brand recognition. Notwithstanding these challenges, Moldova's light industry is vibrant and thriving. The sector is on track once again to become a central pillar of Moldova's economic growth and development.

The aim going forward is to make the "From the Heart – Brands of Moldova" brand a global ambassador for Moldova's light industry. In Moldova today, the brand is part of our everyday life. It is a source of national pride and the symbol and promise of what Moldova can achieve. Our hope is that tomorrow, people from across the globe will recognize Moldova as an international fashion hub in its own right.



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