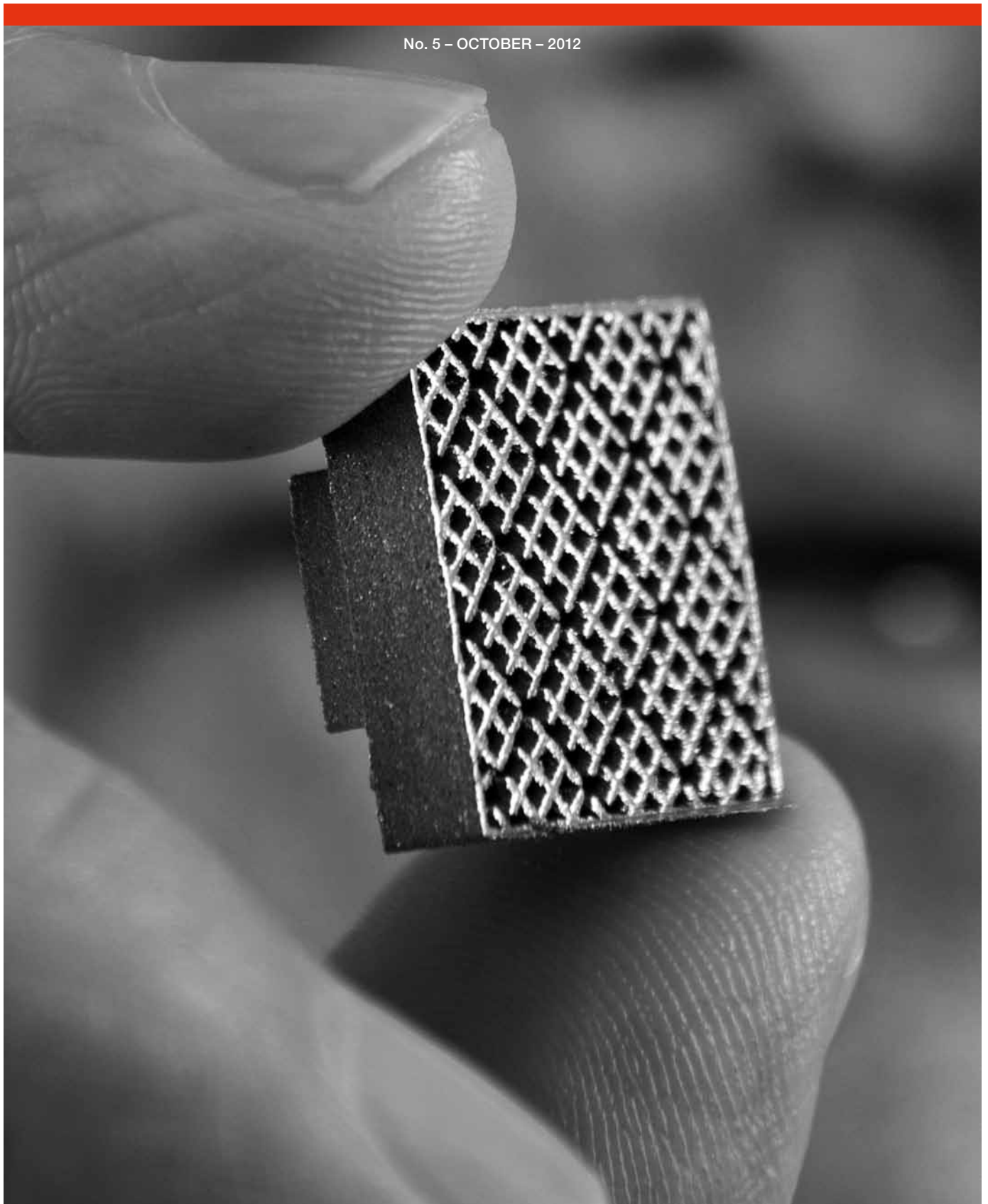


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Maintaining relevance in a CHANGING WORLD:

an interview with WIPO Director General Francis Gurry

Ahead of WIPO's annual meeting of member states from October 1 to 9, 2012, Director General Francis Gurry shared his views with *WIPO Magazine* about some of the key challenges and opportunities that are likely to influence the future evolution of the international intellectual property (IP) system.

What are the key priorities for the Organization moving forward?

The Organization's priorities lie in four main areas – maintaining relevance, ensuring the viability of WIPO's global IP services, providing effective support to improve the participation of developing countries in the IP system and serving as a major provider and coordinator of global IP infrastructure.

The overarching objective in a rapidly changing world, characterized by major shifts in the use of technology, is to **maintain the relevance of WIPO** as the global forum for IP issues. We have to maintain our role in economic rule-making. The recent conclusion of the Beijing Treaty on Audiovisual Performances (the "Beijing Treaty") was an important breakthrough, but we have to ensure that the multilateral system that WIPO oversees continues to deliver on the other issues that are reaching maturity. This is particularly important now when so much is happening in the field of IP within so many different policy-making spheres at national, bilateral, regional and multilateral levels.

We also need to ensure the **viability and primacy of WIPO's global IP services** by expanding their geographical coverage and the range of services offered. The Patent Cooperation Treaty (PCT), with 146 contracting parties, is a truly global system. The next three years will see a marked expansion of the Madrid System for the International Registration of Marks. Similarly, over the next five years, membership of the Hague System for the International Registration of Industrial Designs is expected to grow.

Significant progress is being made to ensure continuous improvement in our services. The e-PCT platform, for example, which provides secure electronic access to files relating to international applications filed under the PCT, is proving very popular. The Madrid information technology (IT) renovation project is also well under way, and a raft of useful tools and services are coming online.

A major task is to provide effective support to **improve the participation of developing countries in the IP system**. As countries seek to add value to their national resources and intellectual assets, IP becomes increasingly relevant and our member states' needs evermore sophisticated. The Organization, therefore, needs to ensure it delivers the required levels of service and assistance.

Finally, we need to serve as **a major provider and coordinator of global IP infrastructure** to improve the efficiency with which the IP system operates, as well as its broad accessibility and use, and where appropriate to advance defined public policy goals. Significant progress has been made in many areas (see pages 6 and 7).

What is the significance of the Beijing Treaty on Audiovisual Performances?

The Beijing Treaty is a good thing for actors, for IP, for WIPO, for China and for multilateralism. It is a win all round. Although member states have concluded three other treaties since 1996, these address areas of procedural law. The Beijing Treaty is the first substantive IP law treaty in 16 years.

It is a further step in the development of the international legal framework for copyright and more broadly to re-kindling confidence in the treaty-making process. The Beijing Treaty brings the rights of audiovisual performers and actors into line with those available to authors under the WIPO Copyright Treaty (WCT) (1996) and to musicians, recording artists and recording organizations under the WIPO Performances and Phonograms Treaty (WPPT) (1996).

The remaining issue to address in completing the 1996 platform is updating the rights of broadcasting organizations. In the July session of the Standing Committee on Copyright and Related Rights (SCCR), member states signaled their willingness to move forward on this issue, which is very promising. I hope that we can achieve the same alignment of interests (between business, civil society and governments) on this question, as we did in concluding the Beijing Treaty. Civil society and the private sector make an enormous contribution to the treaty-making process. At the end of the day, member states will only move forward on an issue when they detect a level of comfort on the part of the people they represent. If one of the major interest groups is not on board, achieving international agreement can be very difficult.



Photo: Dhillion Photographics

What is the status of discussions relating to improved access by the visually impaired to published works?

There is growing consensus that an international agreement in this area is a priority. I am hopeful that member states will open the way to moving forward on this question at the forthcoming meetings of WIPO Assemblies.

This is first and foremost a disability issue. It stands on its own merits, and international agreement to facilitate access to published works for the print disabled would reinforce the international recognition given to disability in the UN Convention on the Rights of Persons with Disabilities.

What needs to be done to move the copyright agenda along?

The international legal framework for copyright will continue to evolve in line with the issues that member states identify as ripe for multilateral action. The real breakthrough for copyright, however, is going to be in the area of infrastructure. As a matter of public policy, we have to support the development of an efficient global digital marketplace. We have to provide the legal architecture to satisfy the growing expectations of consumers whose use of increasingly sophisticated technologies enables them to consume creative works via the Internet at will.



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A strategic approach to IP is extremely important. IP has a fundamental role to play in the economy and in society at large.

I think we can all agree that people want an efficient legal, global, digital marketplace. While there will be a certain amount of experimentation, there are many interesting ideas circulating, such as the development of an International Music Registry, or a Licensing Hub as recommended in the Hargreaves report in the UK (see www.wipo.int/wipo_magazine/en/2011/06/article_0004.html).

Is there a role for public-private partnerships?

There is enormous scope for public-private partnerships, both in terms of building IP infrastructure in general, as well as in developing practical solutions to advance certain defined public policy objectives as demonstrated by WIPO Re:Search and TIGAR. There is growing interest in such arrangements within the private sector, and I think this will increase in the future.

Why is activism important within the copyright debate?

Copyright has served society and the economy very well, but the digital environment poses a serious challenge which is not going to disappear. We have to actively find ways to maintain the central mission of copyright – that of ensuring a viable economic existence for creators and creative industries while making creative content broadly available – in the digital environment.

There is growing anti-IP sentiment in some quarters. Is this a cause for concern?

I think it is quite normal, because as the role of knowledge in production becomes increasingly important, the rights in relation to knowledge become more economically and socially significant. As that process unfolds, different sectors of society become aware of what is happening and start expressing their views about these new developments.

This is all taking place against a backdrop of extraordinary technological change. Technology is encroaching on every aspect of our lives, wherever we live, and at some point we will inevitably come up against the IP rights associated with its use. Broad, democratic debate on these issues is, I believe, a perfectly normal and a very healthy thing.

WIPO Director General Francis Gurry opens a World Intellectual Property Day exhibition showing the intellectual property behind Steve Jobs' innovations.

There is also a general democratization of the policy and treaty-making processes. Civil society is demanding greater transparency from its political representatives, including in the field of IP policy-making. WIPO is responding to this by, for example, webcasting the proceedings of its committees. This is a positive development and has been well received.

Winning the hearts and minds of the public is a significant challenge. It requires convincing people that a short-term disadvantage, in terms of paying for the use of someone else's property, is worth the long-term advantages of a sustainable creative culture and innovative economy. We need to create greater public awareness about the role and value of a balanced and robust IP system and the many advantages that can flow from it.

What are the main factors that will shape the future IP agenda?

The IP agenda is already being shaped by the dramatic shift towards Asia in the geography of economic and technological production. The implications of this for IP will be radical and far-reaching. The traditional binary view of the world as developed and developing is no longer tenable as there is much greater diversity in the enjoyment of economic wealth than that view suggests. The increasingly rapid pace of technological change is also a major challenge.

In this context, it will become increasingly important for the international IP community to be selective in identifying those essential framework issues around which international agreement is achievable. In the 19th century, for example, national treatment was an essential framework issue that required attention. We need to identify equivalent rules for today's globalized digital world. The view that every issue has to be dealt with by means of a multilateral legal framework is not realistic or helpful. We would do well also to explore the merits of other complementary means of advancing public policy objectives, including public-private partnerships.

What is your key message to member states going forward?

A strategic approach to IP is extremely important. IP has a fundamental role to play in the economy and in society at large. The IP system balances the rights and interests that exist in relation to innovation and creativity. As these intangible elements of the economy become more valuable, so the IP rights associated with them become more important. If we are to ensure a functional knowledge economy, we have to pay attention to these issues.

What do you most like about your job?

Intellectual property is concerned with change in that it deals with the new, whether in the form of new cultural creations or new innovations. My role offers an extraordinary opportunity to meet a wide range of people that are intimately involved in these change processes. This is a rich and wonderful reward.

PROGRESS IN IMPROVING THE EFFICIENCY, ACCESSIBILITY AND USE OF THE IP SYSTEM: SOME KEY DEVELOPMENTS

— Global Brand Database

Launched in March 2011, WIPO's Global Brand Database offers free-of-charge access to some 2 million records relating to internationally and nationally protected trademarks, appellations of origin and armorial bearings, flags and other state emblems as well as the names, abbreviations and emblems of intergovernmental organizations. It provides a one-stop shop for searching brand-related information from multiple sources by means of a single, user-friendly screen (www.wipo.int/branddb/en/index.jsp). In addition to WIPO's own brand-related data collections, the database also includes those of Algeria, Canada and Morocco. A number of other countries are expected to add their data collections in the near future bringing the number of records to over 10 million.

The Global Brand Database includes a number of powerful search features making it quick and easy for users to find the information they require. These include:

- search by description of images;
- auto-suggestion of potential matching terms;
- fuzzy and phonetic term matching;
- summaries of matching documents in multiple categories, including graphical representation of countries of origin and designations; as well as
- detailed result lists or quick lists of brands.

The service is an integral part of WIPO GOLD (www.wipo.int/wipogold/en/), a free public resource, which provides quick and easy access to a broad collection of searchable intellectual property (IP) data and tools.

The ongoing development of WIPO GOLD and the Global Brand Database is part of WIPO's commitment to narrowing the global knowledge gap by improving access to and use of IP information.

— Madrid system: New online tools

The Goods and Services Manager (G&S Manager) assists trademark applicants and their representatives in compiling the lists of goods and services that they need to submit when filing international applications under the Madrid system.

Madrid Portfolio Manager is a web service that offers holders of international registrations and their representatives secure access to their international trademark portfolios.

Madrid Electronic Alerts is a free "watch" service designed to inform anyone interested in monitoring the status of certain

trademark registrations. Subscribers receive daily e-mail alerts when relevant changes are recorded in the International Trade-mark Register.

Madrid Real-time Status (MRS) is a stand-alone tool that allows applicants to track the status of international applications or requests in real time.

Full details are available at www.wipo.int/madrid/en/services/

— PATENTSCOPE

The PATENTSCOPE search engine (<http://patentscope.wipo.int/search/en>) offers free access to over 14 million patent documents, including 2 million international patent applications filed under the PCT. It contains the patent data collections of 29 national offices as well as those of the African Regional Intellectual Property Organization (ARIPO), the European Patent Office (EPO) and LATIPAT, a platform that provides patent information in Spanish and Portuguese.

PATENTSCOPE features a number of powerful tools, including cross-lingual search and machine translation. By simply entering a term or a phrase in one language, it is possible to retrieve relevant patent documents in multiple languages.

— WIPO CASE

The WIPO Centralized Access to Search and Examination (WIPO CASE) system is designed to facilitate the sharing of confidential search and examination information between IP offices, and to help enhance the quality and efficiency of search and examination and minimize unnecessary duplication of work. Using this platform, patent examiners from one group of participating offices can access the collection of patent search and examination reports shared by the office group.

The platform is intended for use by groups of IP offices that mutually recognize their search and examination work. Patent documents and data shared through WIPO-CASE can either be hosted by WIPO or the digital libraries of national offices.

Initially developed to support the work sharing efforts of the IP offices of Australia, Canada and the UK, WIPO-CASE is now being used or evaluated by other regional groupings of IP offices.

— WIPO Digital Access Service (DAS)

The WIPO Digital Access Service (DAS) offers a secure, easy, rapid and inexpensive means of exchanging priority documents and similar papers between IP offices.

The system enables applicants and offices to meet the requirements of the Paris Convention for certification in an electronic environment. Traditionally, applicants have been obliged to request certified paper copies of documents from one office and then to submit them to other offices. The DAS allows applicants simply to request the first office (known as the depositing office or the office of first filing) to make priority documents available to the system and then to request other offices (accessing offices or offices of second filing) to retrieve those documents via the service. This exchange of documents takes place electronically.

At present, the service is used for priority documents relating to patent applications. Ultimately, it will be extended to other IP rights, such as industrial designs and trademarks, once the participating offices have made the necessary operational and technical changes.

— WIPO Re:Search

Less than a year after its launch, the pioneering WIPO-led public health initiative known as WIPO Re:Search has spawned its first research partnerships. In August 2012, AstraZeneca concluded agreements through WIPO Re:Search with iThemba Pharmaceuticals (South Africa), the University of California, San Francisco (USA) and the University of Dundee (UK) to study novel treatments for tuberculosis (TB), Chagas disease, sleeping sickness and schistosomiasis (snail fever).

“Agreements such as these to transfer technology from one partner to another are an important measure of success for WIPO Re:Search,” said WIPO Director General Francis Gurry.

Dr. Manos Perros, Head of the AstraZeneca Infection Innovative Medicines Unit, said: “As an industry, we have a great opportunity to make a real difference in global health through WIPO Re:Search by addressing the needs of the considerably underserved population suffering from neglected tropical diseases.

Launched at WIPO in October 2011, WIPO Re:Search is an open innovation platform that brings together a broad coalition of public and private-sector partners to catalyze research into the discovery, development and delivery of drugs, vaccines and diagnostics for neglected tropical diseases (NTDs), malaria and TB. Since its launch, WIPO Re:Search has grown from 30 to 50 members from all five continents.

Under the terms of WIPO Re:Search, organizations agree to make available IP assets (such as pharmaceutical compounds, drug discovery technologies, regulatory data and know-how) to qualified researchers anywhere in the world on a royalty-free basis, provided the research is focused on NTDs, malaria

and TB. Any products resulting from this research will also be royalty-free for sales in least developed countries (LDCs).

NTDs are endemic in 149 countries and affect over a billion people worldwide. By providing a searchable, public database of relevant, available IP assets, information and resources, WIPO Re:Search facilitates new research partnerships. BIO Ventures for Global Health (BVGH), the Partnership Hub Administrator, actively identifies partnership opportunities between members and assists collaborations to drive the development of new products for these diseases. These efforts led to the conclusion of these first results.

— The Trusted Intermediary Global Accessible Resources (TIGAR) project

The Trusted Intermediary Global Accessible Resources (TIGAR) project is an unprecedented initiative designed to facilitate access to published works by the visually impaired and print disabled. Approved in November 2010, the project enables publishers to make their titles easily available to trusted intermediaries (TIs) that create accessible formats which they share among themselves and with specialized libraries. So far, eleven TIs have joined TIGAR and exploratory discussions have been held with TIs from China, India and Korea. Also, more than 24 right holders, mainly publishers, including Elsevier, HarperCollins, Bloomsbury and SAGE have signed an MOU in relation to TIGAR.

It is estimated that just 5 percent of the world's 1 million print titles published every year are accessible to the approximately 340 million people around the world living with print disabilities. Specialized organizations, such as libraries for the blind, adapt these books into accessible formats (such as Daisy, Braille and audio), at great expense. TIGAR is the result of close collaboration between WIPO and organizations representing authors, publishers and blind and low vision persons, including the World Blind Union (WBU) and the International Publishers' Association (IPA). WIPO provides the technical support for the project which promises to expand the range of books available in formats accessible to the print disabled. ♦

HANDMADE IN THAILAND: building brands for local communities



By **Francesca Toso**, Senior Adviser,
Development Sector, WIPO

Thailand's rural communities are overflowing with highly skilled artisans, many of whom are full-time rice farmers. The handcrafted products they create using age-old know-how and skills are a useful supplement to agricultural incomes and an important buffer against the vagaries of farming life. In 2011, for example, many of these communities were hit by the worst flooding in decades, with over 13 million people affected and 65 of the country's 77 provinces declared flood disaster zones. A steady income from high-quality, handcrafted products promises greater financial security for these rural dwellers.

WIPO DEVELOPMENT AGENDA INITIATIVE

In 2010, WIPO, in collaboration with the Thai government and King Mongkut University of Technology Thonburi (KMUTT), began supporting three rural communities in using the intellectual property (IP) system to boost the commercial value and viability of their artisanal products. The initiative is part of an innovative WIPO Development Agenda project that aims to support local business development through IP and branding. The handicrafts targeted under the project include some of the country's most emblematic products and reflect the breadth of Thailand's creativity, the depth of its local traditions and their significant commercial potential. They include the intricately woven wicker products crafted by the artisans of Bang Chao Cha, the colorful cotton textiles created in Mae Chaem and the sumptuous brocade silk produced in Lamphoon.

These communities, along with the Thai authorities, are keen to develop their community businesses by enhancing the commercial value of their products through effective branding. "We operate in a highly competitive global market flooded with many similar products. Developing a brand that effectively communicates the origin of a product, its quality and the local materials and know-how used to produce it, as well as the identity of the producer, is a key element in making products more competitive and marketable," notes Veeranan Nidlanuvong, Deputy Director of Thailand's Department of Industrial Promotion.

IP experts Fabrice Mattei and Akkharawit Kanjanaopas, partners in the Bangkok IP law firm Rouse International, are assisting WIPO in implementing the project in Thailand. As a first step, they evaluated the qualities and marketability of the products to determine the most suitable form of IP protection for them. They then assessed each community's training needs to ensure local businesses and institutions acquired a solid understanding of how to use distinctive signs – collective or certification marks, and geographical indications (GIs) – to support their branding efforts. These were important steps in meeting the project's overarching objective, namely, to create conditions that would enable each of the target communities to boost the commercial value and marketability of their origin-based products.

"What each community will get [from the WIPO project] will be different because their needs vary, but in the end each will have a better capacity to use IP," says Dr. Akkharawit. "We hope that each community will have learned from this experience and will be able to continue to leverage the value of their products. Importantly, each community will also be able to pass along its cultural heritage – something that would otherwise be lost."



BANG CHAO CHA'S WICKER WARE

The central plains of Thailand are home to the country's largest rice-growing area. The region's distinctive landscape – dotted with paddy fields, small lakes and marshes interspersed with patches of semi-natural woodland and bamboo – is an inspiration for much of its art and culture. Within these fertile plains lies the village of Bang Chao Cha and its community of wicker weavers, mainly women, who use age-old techniques to produce a range of intricately woven bamboo goods, including baskets, bags and trays. These are sold throughout Thailand and, to some extent, internationally. The villagers work together in the community's Wicker Weavers' Cooperative, and are eager to develop their products and maximize their market value.

The WIPO project team began working with Bang Chao Cha's weavers in 2010, introducing them, and the local authorities, to the world of IP. The team highlighted how industrial designs can protect the aesthetic aspects of handicrafts; the way in which copyright protects original creations; the role of trademarks in distinguishing products from those of competitors; and how GIs can help build the reputation of high-value, niche products. With this understanding, and keen to move forward in strengthening their business, the community's cooperative opted to begin developing a collective mark, an important first step in distinguishing their products from those of their competitors.

Maintaining the traditional skills and know-how employed in producing locally crafted goods is an ongoing challenge for artisans – one that is further compounded by the need to innovate to meet constantly evolving consumer tastes. Recognizing this dilemma, teachers and students from KMUTT worked closely with Bang Chao Cha's weavers, both old and young, to develop innovative traditional product designs.

"KMUTT product design students worked with students at the local Temple School to trigger their innovation capacity," explains Nanthana Boonla-or, instructor at KMUTT's School of Architecture and Design. "This has been an extremely fruitful experience," she notes, "and points to the many advantages that can flow from close university-community collaboration."

"We have been inspired by the traditional bamboo rice containers and fish traps used in the olden days and have developed new products and designs. While we try to maintain traditional ways, we are also playing with the idea of introducing new functions, new proportions and colors," notes Wanas, a KMUTT student working with the weavers.

WIPO and its partners have been working with the Weavers' Cooperative for two years on IP and business development issues, resulting in the development of a collective mark for "Bang Chao Cha Wicker Works". This is now ready to be registered at the Department of Intellectual Property of Thailand in the name of the district authority.

Lampoon Silk Brocade manufacture enjoys the patronage of Thailand's Queen Sirikit

The traditional art of wicker weaving in Bang Chao Cha



MAE CHAEM'S COLORFUL TEXTILES

While agriculture is the mainstay of the rural community of Mae Chaem, in Thailand's northern Chiang Mai region, woven textiles are a useful secondary income source. The region's distinctive woven textiles with their characteristic animal, plant and floral prints, created using natural dyes, reflect the closeness of its people to their natural environment.

Known as teenchok, these textiles are an integral part of the lives of the women of Mae Chaem. "In Mae Chaem, we weave teenchok for our own use as well as for sale", notes Kaysorn Kannyka, leader of the local weaving cooperative. "Each teenchok is unique in that each pattern is determined by the color of the cotton threads the weaver chooses and the imaginative patterns each weaver creates," she explains. Working every day, a weaver could complete about two pieces of teenchok a month, but as farming, the main source of income, occupies the bulk of the women's time, it usually takes a month to complete one piece of teenchok.

Mae Chaem's community cooperative, recognizing the benefits of IP, had already taken steps to acquire GI status for its products. The WIPO project team helped finalize the process by guiding and advising the Cooperative on the code of practice and traceability requirements that guarantee the origin of Mae Chaem's products and their compliance with agreed production standards. These important steps made it possible to register the Mae Chaem Teenchok GI in Thailand.

"The distinctive characteristics of Mae Chaem's teenchok – the quality of the cloth and traditional methods of production – are such that a branding strategy underpinned by the registration of a GI is the best way forward. This will ensure that Mae Chaem's textiles stand out from similar cloth produced elsewhere,"

explains Dr. Akkharawit. "Mae Chaem's GI status makes it possible to recount the story of its teenchok: a story about highly skilled artisans who invest significant time and energy in weaving their own variations of 16 traditional patterns, each with a different meaning, to create unique measures of cloth. With a registered GI, the community can begin to build its reputation as the producer of distinctive, high-quality products, carve a market niche and command premium prices for their cloth."

The members of Mae Chaem's Cooperative are unabashed by the rigor and discipline they need to exercise to comply with the strict standards of production required to qualify for GI protection. They consider this a small price to pay for enhancing the reputation of their products and the promise of increased revenue. "Beyond the fact that it has allowed us to take pride in ourselves and our culture, the project is also increasing the quality of our products. We are now able to more effectively position our product and to work with a more reliable group of buyers. This helps improve the price of our cloth and the economic returns to the community", notes Dr. Panya of the Technology Licensing Office and University Business Incubator of Chiang Mai University.

LAMPOON'S BROCADE SILK

Known as Lampoon Yok Dok, the elaborate silk brocade produced in the Northern Lampoon district is an exquisite textile inspired by the Thai royal silk tradition and used by Thai high society. This lavish, high-quality cloth is already protected in Thailand as a GI.

"The GI registration helps limit the producers of the Lampoon Yok Dok silk to the Lampoon province only," notes Pornraveed Poohareanon, Deputy Chief Executive, Lampoon local authority. "In addition to protecting the interests of the producers, it also





Photo: Rouse & Co. International, Intellectual Property

helps control the quality and standard of the products. The GI label provides information about the characteristics of the fabric, including its pattern, the weaver's name and a unique identification number to ensure traceability."

The WIPO team's role in Lamphoon was to advise producers on ways to further leverage the GI status of their products, by focusing, in particular, on establishing marketing strategies and identifying potential buyers and distributors. It also involved supporting the community's participation in a European Union-funded project, whereby producers agreed to undergo a third-party certification process to guarantee the originality, traceability and high quality of their GI-protected silk brocade. This has further validated the community's strict quality controls, consolidated its brand and strengthened the export potential of its cloth.

Whether the target communities seek greater visibility in export markets, or aim to become household names in Thailand, the WIPO IP and Product Branding for Business Development project has been instrumental in raising community IP awareness and has laid the groundwork for these producers to more effectively commercialize their products. "The branding strategies we have put in place create an opportunity to expand into export markets where foreign buyers can learn about these products, their origin and their associated traditions," notes Dr. Akkharawit.

Developing an effective IP strategy is an essential part of the commercialization process, but it is only a first step. In the remaining months of the project – up to mid-2013 – the team will work with the target communities to develop effective marketing and distribution strategies. While this guidance is invaluable, in the end success will largely hinge on the drive and entrepreneurial flair of the producers themselves. "It will be up to the communities themselves to drive the process and to set their own objectives for the future," notes Dr. Akkharawit. In their hands lies the fate of "Handmade in Thailand" and the distinctive brands and ancient know-how it represents, as well as the promise of business development for generations to come. ♦

Teenchok in the making: Mae Chaem women at the loom

Traditional colors and patterns of Mae Chaem Teenchok

Building South Africa's INNOVATION ECOSYSTEM

By Catherine Jewell,
Communications Division, WIPO



Photo: CSIR

Dr. Sibusiso Sibisi, President of South Africa's Council for Scientific and Industrial Research (CSIR) is a member of the Advisory Board to the Global Innovation Index co-published by INSEAD and WIPO.

South Africa's Council for Scientific and Industrial Research (CSIR), a leading scientific and technology research, development and implementation organization, is at the forefront of the country's quest to become a fully-fledged knowledge-based economy. WIPO Magazine recently met with the CSIR's President, Dr. Sibusiso Sibisi, to find out more about the organization's approach to innovation and the opportunities and challenges it faces in fostering a culture of innovation to deliver widespread economic and social benefit.

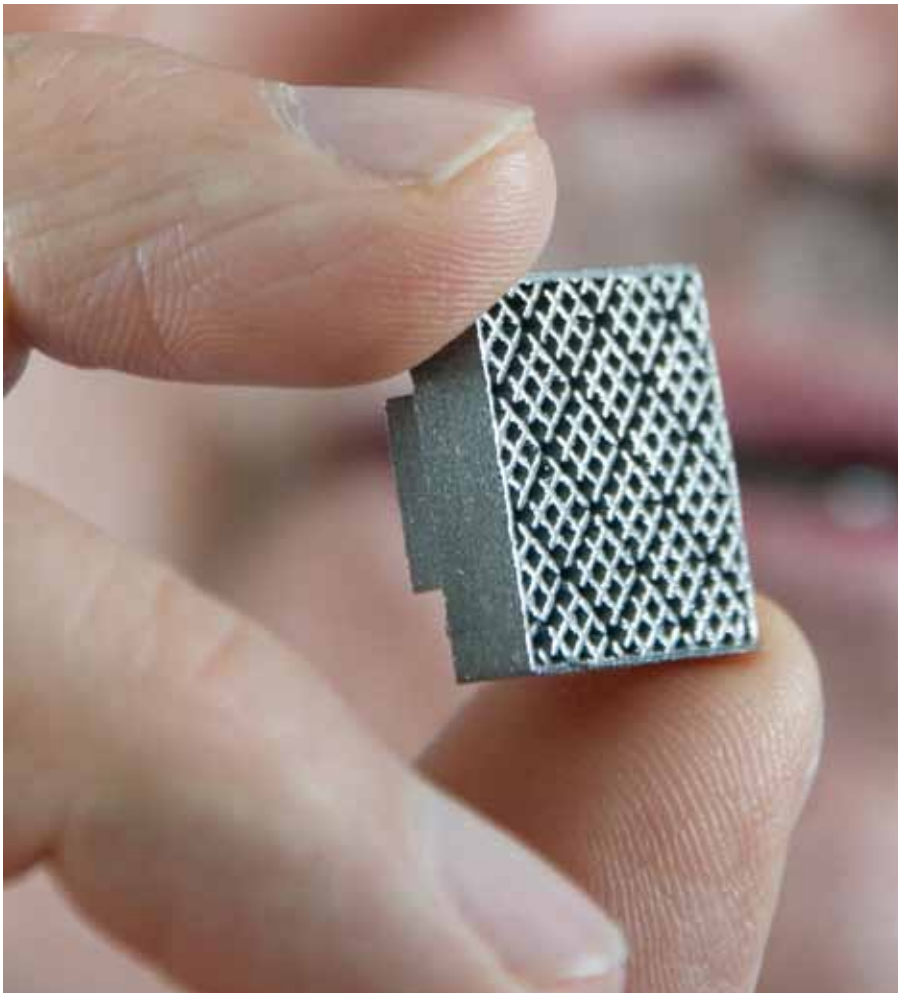
The CSIR is a multidisciplinary organization responsible for generating new knowledge, applying existing knowledge, and developing and leveraging technologies to generate positive socioeconomic impact in line with national priorities. "While we quite rightly speak about innovation as a means of stimulating economic growth, our innovation efforts must seek to improve the lives of all South Africans," Dr. Sibisi stresses. "We have high levels of youth unemployment in South Africa and huge disparities in wealth, so we need to constantly think about how our innovation strategies can help address these deep-rooted social problems," he observes. "When I speak of innovation, I am speaking not only of economic growth but also of lifting people out of poverty. I am not just talking about setting up a company that employs people, but about creating an enabling environment where people use the innovation process to set up their own companies."

THE CSIR'S ROLE

The CSIR plays a key strategic role in shaping the country's research and development (R&D) agenda. It places great emphasis on catalyzing the development of as yet non-existent or nascent industrial sectors to fully realize South Africa's innovative potential and achieve sustained economic growth. "Rather than short-term employment-creation projects, our role is to undertake R&D and technology transfer that will stimulate sustainable industrial activity and job creation in the longer term," Dr. Sibisi explains. In this respect, the CSIR is not necessarily driven to maximize commercial returns by licensing technologies offshore. Instead, it seeks to identify and develop technologies with the potential to create local enterprises, generate long-term employment and respond to local needs.

SERVING ECONOMIC AND SOCIAL INTERESTS

The organization seeks to address industrialization at every level, working with groups at the grass roots as well as those in high-tech spheres. For example, it is working with small farmers to develop the production of essential oils for the fragrance industry in France. "The kind of support we are providing is, first, to identify the plants that



Photos: CSIR

A natural fiber-reinforced composite sandwich after fire-testing. Treated with an environmentally benign flame-retardant (to comply with flame, smoke and toxicity requirements), these natural fiber-based panels are being used for aircraft interiors and other aerospace applications.

The first titanium test part produced through additive manufacturing.



CSIR Principal Researcher Dr Hulda Swai and her team are developing a slow-release mechanism for drugs within the body to simplify drug treatment regimens, improve patient compliance rates and minimize drug resistance.

CSIR is breaking new ground in titanium metal production. It has developed a process for producing titanium powder directly from titanium tetrachloride ($TiCl_4$) – on a commercial scale. CSIR is setting up a pilot manufacturing plant to develop South Africa's titanium manufacturing capacity as a commercially viable proposition.

have essential oil potential, and then to help manage all the steps in the value chain – from growing the plants through to export and customer relations with high-tech perfume producers in Europe,” Dr. Sibisi explains. “The formal technology step is but one part – and can be a very small part – of the full set of support mechanisms that are necessary,” he notes. “It is not necessarily about doing anything new, it is about thinking innovatively about what we do and broadening the scope of the role of an institution like CSIR to ensure that an innovative technology actually begins to serve the economic and social interests of the country.”

FOSTERING NEW INDUSTRIES

Similarly, the CSIR has been working with rural communities to produce and process sisal for various components used in Mercedes C class cars that are assembled in South Africa for sale worldwide. The aerospace industry is now also considering using sisal components to fit its airplanes.

The aerospace industry also increasingly seeks light, strong metals, such as titanium, for the manufacture of aircraft. South Africa has vast mineral wealth, including rich deposits of titanium and platinum, but these resources have traditionally been extracted and exported to other countries where they are transformed into higher value products. South Africa’s mining sector currently employs some 495,000 workers and earns some 162 billion rand (some US\$19.6 billion) in annual export revenue. With a view to further leveraging the value of this vast mineral wealth, the CSIR is setting up a pilot plant to develop the country’s titanium manufacturing capacity as a commercially viable proposition. “We can get to the point of producing titanium powder, which is then used in injection molding machines to produce various components; that’s where the airline industry comes in,” Dr. Sibisi explains. “It is one thing to show that you can make a component from titanium in a lab in South Africa, but it’s quite another to scale-up and industrialize production,” he notes. He anticipates that, within five years, the CSIR will be able to demonstrate that it is possible to viably produce titanium components “on a scale and of a quality required by commercial suppliers.”

Dr. Sibisi is unequivocal about the importance of this groundwork. “Unless we do this we will simply continue to export our raw materials, and we wouldn’t be doing justice to our resource base or to our potential to create a stronger manufacturing base for the country’s long-term economic growth.”

“The important thing for us at the CSIR is not just fostering new start-up companies around a piece of technology, but to stimulate whole new areas of industrial activity that have not previously existed in South Africa. This is arguably the single most important role that we can fulfill,” Dr. Sibisi stresses. In this way, the CSIR bridges the gap between rhetoric and reality, “taking steps beyond policy frameworks to pilot concrete initiatives to see whether or not they work in practice. We won’t know until we’ve tried,” Dr. Sibisi explains. This is a crucial role in areas “where the risk is too high for industry to get involved because the returns lie many years further downstream. We can nonetheless begin to pilot what is possible and, in making the commercial case, attract large industry partners further down the line.”

STRATEGIC ALLIANCES

Similarly, the CSIR is working to build up South Africa’s capacity to tackle some of the continent’s worst diseases, including HIV and tuberculosis (TB). South Africa has the highest incidence of TB infection in the world with over 70 percent of TB patients co-infected with HIV/AIDS. In collaboration with strategic partners, the CSIR is developing a new method of delivering TB drugs to patients, using nanotechnology to simplify treatment regimens, improve patient compliance and thereby minimize multidrug-resistant TB.



Strategic alliances between universities, the public sector and industry are central to the success of these initiatives. The CSIR engages with the private sector in two ways: on a contractual project basis and, more strategically, to investigate new areas or activities. Dr. Sibisi believes there is enormous scope to further develop its strategic partnerships both at home and abroad. Within Africa, he notes the CSIR's work with institutes in Ghana and Kenya to fortify the food staple, sorghum, in a project funded by the Gates Foundation. "We would indeed like to do more of this type of work, because there are many common challenges in areas such as nutrition, transport, environment and water management."

SCOPE OF ACTIVITIES

As a multidisciplinary research organization with a mandate to advance the fortunes of South African industry and its people, the scope of the CSIR's activities are limitless. "That's a strength in that you can identify your own priorities and go as far down the innovation chain as you deem necessary," Dr. Sibisi notes. "The weakness, however, is that you can end up stretching yourself too thin and being less effective as a result." This is a constant challenge for Dr. Sibisi and his colleagues at the CSIR. The more effective and successful the organization becomes, the more it is called upon by government to do.

FUNDING

Although a public institution, the CSIR is not fully publicly funded. Thirty percent of funds come directly from the public purse, and an additional 70 percent is derived from contract work commissioned by public and private-sector entities.

INTELLECTUAL PROPERTY CHALLENGES

The CSIR's intellectual property (IP) strategy is shaped by a national legal framework, similar to the Bayh-Dole Act in the US, whereby publicly-funded research must be protected and exploited in the public interest. The organization currently holds over 400 patents comprising some 160 patent families. While filing for national patent protection is straightforward, filing for international patent protection "is a big challenge because of the costs involved," Dr. Sibisi reveals. Each year, the CSIR has to take tough decisions about which patents to maintain and which to discard in line with the prospects for commercialization. "We may be throwing away something that is important, but we can't keep paying for a large portfolio of international patents unless we are exploiting them in some way," Dr. Sibisi observes. Enforcement of IP rights poses a further challenge.

The CSIR has actively licensed its IP assets for the past decade. These often complex negotiations have caused it to continually hone its licensing practices. "We recognize that we need to grow,



Photo: CSIR

Sisal fields in the Eastern Cape, South Africa. CSIR is working with rural communities to produce and process sisal for automobile and aerospace components.

“While we quite rightly speak about innovation as a means of stimulating economic growth, our innovation efforts must seek to improve the lives of all South Africans.”

but we must grow organically in a way that is commensurate with our activities and our successes, but we are not going to have successes unless we have resources,” Dr. Sibisi notes. An even bigger challenge, however, beyond clarifying IP ownership, is “simply whether there is a sufficient flow of IP, particularly patents that are making their way to commercial success.”

The CSIR has a three-pronged commercialization strategy: setting up a start-up company, in which the organization has a stake; outright sale of IP assets; and IP licensing. Within the licensing stream, when technology has a perceived broad public benefit, a dual licensing model is adopted. For example, the CSIR’s orbital eyeball implant – an artificial eye that synchronizes movements with the healthy eye for improved cosmetic appearance – was licensed to both the national health system on a royalty-free basis and to the private sector on a commercial basis.

The CSIR’s chief executive needs no convincing about the place of IP in the innovation equation. “IP is extremely important. It is a basis for the growth and competitiveness of nations and, in a world where a lot of what we do and make is so strongly dependent on knowledge input, it would be foolhardy to ignore it,” he observes.

BUILDING AN INNOVATIVE ECONOMY

While South Africa is fortunate in that it has significant mineral resources, a very strong financial sector and a robust regulatory framework, Dr. Sibisi underlines the need to continue to strengthen the country’s innovation ecosystem and, in particular, to develop the skills that underpin an innovative economy. “We need to continue to develop practical skills in entrepreneurship beyond what you might learn, important though it may be, at business school. We need to emphasize those skills that support the emergence of dynamic, innovative companies.”

In terms of funding innovation, Dr. Sibisi underlines, “it is not just about inputs. We need to begin to pay greater attention to ensuring that there is the right funding and support at the right places and that it is distributed correctly.” This, he notes, is a particularly important gap for public funding to fill given the general absence of an “angel investor culture” in South Africa, and on the continent as a whole. “It is one thing to encourage people to patent, but there is a lot more to commercialization and to actually reaping the social benefit of that patent.”

A MAN ON A MISSION

Dr. Sibisi is a man on a mission. “In the future, I want to be able to point to a whole new vibrant sector that has resulted from the groundwork the CSIR has laid in South Africa. I want to be able to highlight different examples of where, through our intervention, there is more inclusion, more jobs and less poverty. I want to see that the country is fully embracing a culture of innovation and that we are a serious player in the innovation game.” The organization’s comprehensive engagement with a broad range of stakeholders, and the rigor with which it exercises its multidisciplinary strengths, means that it is well placed to rise to today’s complex innovation challenges. “We have an obligation to do this as a representative and a leader of a continent that has great potential,” Dr. Sibisi notes. “If we don’t do it in South Africa, then we would be defeatist and passing up on an opportunity that we ought to be embracing.” ♦

SINGAPORE:

a home for innovation

Over the past decade, Singapore has emerged as one of the most competitive economies in Asia, one of the easiest places in the world to do business and “a home for innovation”. Ranked third in the 2012 Global Innovation Index for the second year running, Singapore’s sustained emphasis on developing its knowledge and innovation-intensive activity is paying dividends. This drive is set to continue. In 2010, Prime Minister Lee Hsien Loong announced that Singapore will invest \$16.1 billion Singapore dollars (US\$12.9 billion) – a 20 percent increase over the previous five-year period – to support research, innovation and enterprise development from 2011 to 2015. “Research and innovation underpin the competitiveness of our industries, catalyze new growth and transform our economy. Increasingly, intellectual capital will be critical for our next phase of economic development,” the Prime Minister noted in a September 2010 news conference.

Research and development (R&D) has become a cornerstone of the nation’s economic strategy. By 2015, the country aims to increase gross expenditure on R&D to 3.5 percent of gross domestic product (GDP). Singapore’s tertiary sector – its universities, research institutes and polytechnics – play a key role in spawning the innovation that sustains its economic performance. The technology transfer offices established in each of these sectors are instrumental in moving technology from the laboratory to the market. They help identify research with commercial potential, ensure it is outcome driven, and develop strategies for its commercial exploitation.

WIPO Magazine recently interviewed Dr. Valdeew Singh, Director of the Centre for Technology Innovation and Commercialisation (CTIC), the corporate arm of Nanyang Polytechnic (NYP), to find out more about CTIC’s role and the challenges it faces in managing NYP’s intellectual property (IP) assets. NYP has won several prestigious awards in recognition of its innovations as well as its organizational and business excellence. These include the Singapore Quality Award, the Innovation Excellence Award and the People Excellence Award. It is also an enthusiastic user of WIPO’s IP services.

Established in 2008, CTIC is a relative newcomer to the field of technology transfer. However, it has quickly demonstrated how it can make a positive contribution in its role to identify, protect, manage and commercially exploit NYP’s IP assets. CTIC’s mission “is to serve as an effective institution-to-industry bridge to facilitate technology transfer for the greater economic

good and societal benefit of Singapore. It is a conduit to support Singapore’s local industry and community through NYP’s inventions and innovations,” Dr. Singh explains. To this end, it helps spearhead polytechnic-wide research, foster innovation and enterprise and encourage and develop student entrepreneurship initiatives.

CTIC works closely with the Polytechnic’s seven schools – Engineering, Information Technology (IT), Chemical and Life Sciences, Health Sciences, Interactive and Digital Media (IDM), Design, and Business Management – to fulfill NYP’s two strategic goals: to nurture the spirit of innovation and enterprise and to “sell” its ideas. “CTIC’s role and responsibilities have evolved over the years, and the Centre has now become a window to innovation and enterprise at NYP,” Dr. Singh notes.

IP PROTECTION AND MANAGEMENT

The Centre focuses largely on IP portfolio management and licensing but also plays a key role in coordinating R&D funding, strengthening collaboration with other universities and research institutes, and forging links with industry and business partners.

The Centre’s IP Management and Commercialization Pathway clearly and systematically defines each stage involved in taking an idea from the lab to the market. Once an invention disclosure (ID) outlining the details of an invention has been completed, it is submitted to the IP representative of the school concerned, who conducts a first-level assessment before forwarding it to CTIC. IP representatives are experts in their chosen domain and are trained by CTIC in IP management and protection.

With this multidisciplinary and close-knit team in place, CTIC can draw on a polytechnic-wide pool of expertise, leverage accumulated experience and extend its outreach and contacts. Once the ID is received, CTIC’s technology officers thoroughly vet and evaluate the invention for its IP potential. A specially designed “technology & market” matrix helps to sort candidate technologies objectively and to consistently ascertain their patentability and viability from both a technology and commercial perspective. If cleared, a recommendation is made as to how to protect and commercially exploit the invention.

“The decision to file or not for IP protection depends largely on costs versus benefits,” Dr. Singh explains. “If the technology is suited only for the local market then the national phase filing of a patent for Singapore is done. However, if it has international appeal, then the Patent Cooperation Treaty (PCT) route is our



Photos: NYP-CTIC

NYP researchers developed a multimedia racing simulator to promote the Singtel F1 Grand Prix, providing further opportunities for games innovation, modification and production. The developed art assets and coding of the simulator are copyright protected and owned by NYP.

A personal alarm device integrated into a mobile phone emits a loud sound to attract attention if the owner is attacked. It also provides a "community" feature whereby people connected within the community receive distress signals. The invention was filed under the PCT on October 5, 2007 (PCT/SG2007/00034).

preferred option. Thereafter, national phase filing for specific countries is considered in light of the commercial opportunities and interest expressed by licensees or industry partners for their specific target market(s). Provisional filing is preferred when more time is needed to gauge the interest and potential of certain technologies," he adds.

"WIPO offers a useful and comprehensive suite of filing and registration services. Patentscope is particularly useful for doing a quick search of PCT applications filed. We use it in our due diligence before engaging patent lawyers," he notes. "WIPO's databases are also very useful for gathering information about the IP landscape in a specific area of technology, such as clean technologies."

On average, CTIC submits 15 patent applications each year. To date, some 188 patent applications have been filed and 137 granted. They cover inventions in fields ranging from biotechnology (life sciences, biomedical devices and systems, bioinformatics), IT and computing, engineering (electrical, electronic and mechanical as well as robotics and automation), health care and materials. CTIC handles design registrations and copyright protection for teaching and learning content, games, animation clips and software applications. It also manages the trade secrets NYP holds for its food recipes and proprietary manufacturing processes.

LICENSING

Licensing is currently the main focus of CTIC's commercialization strategy. So far, CTIC has facilitated 33 IP licensing deals, concluding, on average, around 12 such agreements a year. To ensure that the many types of licenses it handles are robust, the Centre has developed a comprehensive checklist of terms to consider when negotiating an IP license. These include the type of licensing, duration, territories, field-of-use, fees payable and mode of payment, scope of licensor's rights, prosecution and maintenance, indemnity, warranty and infringement.

In terms of negotiating licenses with technology partners from developing countries, CTIC "ensures affordability for the party concerned in return for assurances of fair use and best efforts in exploiting or applying the IP concerned. If there is a potential community benefit, we are likely to be more general with our licensing terms," Dr. Singh explains.

CTIC's commercialization endeavor is underpinned by a desire to generate economic and social benefit. "We are not positioned as a profit maximizer but as a conduit to support local industry and the community, to make a difference in technology capability development and to improve quality of life. The revenue generated is channeled back into the polytechnic to ensure its sustained technological advancement," Dr. Singh observes.

ENTERPRISE DEVELOPMENT

NYP's commitment to nurturing a spirit of innovation and enterprise is also beginning to pay off in terms of spawning new start-up companies. Five such companies have so far been established by NYP staff, students and alumni in the areas of life sciences, electronics, information and communications technologies (ICTs), food technology, IDM and e-commerce. Dr. Singh sees such enterprise development as an opportunity for NYP to further boost its commercialization endeavor. CTIC's comprehensive range of "commercialization support services" plays an important role in this respect. For example, in terms of introducing start-ups to NYP's IP portfolio for possible adoption, as well as to business mentors and funding groups. The Centre's technology and business intelligence service helps companies identify opportunities and mitigate risk, and NYP-managed incubation facilities help start-ups emerge as independent operators. Its incubation facilities, which include 15 "dry" labs (for Engineering, ICT, IT and IDM) and 8 "wet" labs (for Life Sciences, Materials Science and Food Technology) also cultivate practical learning opportunities that generate valuable industry and research insights of benefit to both start-up companies and NYP.

The Polytechnic "operates on a win-win premise to ensure there is a common interest and mutual benefit," Dr. Singh explains. NYP has established a variety of domain-specific specialist technology centers, in collaboration with leading technology solution providers and partners, to spearhead the development of its technical capability in specific areas and to engage local companies to deliver customized turnkey solutions that address their proprietary needs. "We benefit by gaining access to the latest technologies and know-how to keep ourselves up to date, and acquire a better understanding of market needs with the opportunity to engage in R&D and industry project development that offer our staff and students greater exposure," Dr. Singh notes. "On the other hand, industry benefits from having access to expertise, facilities and resources that can enable them to enhance their products, processes and services. We also provide specific continuing education and training programs to help upgrade and improve the skill set and competencies of the industry workforce to ensure it remains relevant and current."

CHALLENGES

Creating a fully integrated and effective "idea-to-market" value chain is one of the key challenges facing CTIC. This involves implementing a holistic, polytechnic-wide research, innovation and enterprise strategy that aligns people, resources and technologies and is key to creating a healthy pipeline of new IP assets. Keeping up to date with technological advances and the ever-changing business landscape as well as maintaining a lean portfolio of quality IP assets with good commercial potential are among the other challenges CTIC faces. But with challenge comes opportunity. Dr. Singh sees great scope for strengthening collaborative links with like-minded technology transfer offices, both at home and abroad. Such networks would:

- help improve market reach beyond Singapore;
- lead to opportunities for bundling IP assets to create more attractive commercial propositions;
- foster translational R&D for more relevant commercial products; and
- create opportunities to share best practices and experiences.

While strong leadership, a supportive parent organization and a healthy pipeline of promising technologies are fundamentally important, CTIC's experience offers other useful insights for those embarking on the technology transfer journey. These include the need to:



Photo: NYP-CTIC



A local small and medium-sized enterprise (SME) specializing in robotics licensed NYP's 2-wheel robot hardware and software developer's kit comprising a robot and ball-tracking vision module, motion control module and PC-to-robot communication module. The kit and its modules are copyright protected and owned by NYP.

Together with the National Heart Centre, NYP researchers developed a haemostatic valve which has been licensed to a medical and electronic device supplier that provides solutions to the health care, diagnostics, electronics and medical device industries worldwide. The invention was filed under the PCT on June 27, 2008 (PCT/SG2008/000232).



- recruit competent, well-trained and motivated staff who are appropriately recognized and rewarded for their achievements; a team blending “new hands” with “old blood” can generate significant results, draw in fresh ideas and develop new capabilities that are carefully tempered with experience and institutional knowledge;
- adopt pragmatic and flexible policies and practices to capitalize on available resources, existing potential and capabilities; focus on improving rather than overhauling;
- offer a range of consistent, efficient and transparent innovation and business support services and develop an effective technology and business intelligence capability;
- establish and strengthen relations with industry partners, research institutes and other “connectors”, both within the organization and beyond; who knows you is as important as who you know; and
- foster a culture of innovation; keep focused on your objectives and persevere.

In its drive to remain competitive and to secure sustained economic growth, Singapore has, over the past decade, successfully transformed itself into a knowledge-based, innovation-led economy. “Research and development underpins the competitiveness of Singapore’s industries and catalyzes new growth, and will hopefully continue to transform the economy,” Dr. Singh explains. Local tertiary institutions play a major role in this, and the expertise, resources and intellectual capital they offer promise to “drive innovation, creating new opportunities in the form of new industries, new companies and new jobs,” Dr. Singh notes. Singapore’s remarkable success in shaping its national innovation landscape offers useful insights into the effective development of a functional and productive innovation ecosystem that supports national economic growth. Recognized as the leading innovative polytechnic, NYP is doing its part to contribute to the continued development of Singapore’s economy, industry and workforce. CJ ♦

NYP’s incubation facilities – 15 “dry” labs (for Engineering, ICT, IT and IDM) and 8 “wet” labs (for Life Sciences, Materials Science and Food Technology) – cultivate practical learning opportunities and generate valuable industry and research insights.

Sporting Goods & THE SPORTS BUSINESS

*By Dr. Jochen M. Schaefer,
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Sporting Goods Industry (WFSGI)*





Sports fans around the world have been spellbound by the achievements of athletes participating in the 2012 Olympic and Paralympic Games in London. In previous issues, WIPO Magazine has offered a variety of perspectives on the importance of intellectual property (IP) to different sports organizations. This article explores the importance of IP protection from the perspective of the sporting goods industry.

The sports industry is a wide-ranging business encompassing the sale of food and sports memorabilia as well as the sale of media rights and sponsorship deals. Many players are involved, from clubs, leagues and sponsors to media broadcasters and, of course, those that produce all the equipment that make high-performance sport possible – the sporting goods industry. A 2011 study by management consultants A.T. Kearny estimates that the global sports industry is worth as much as US\$620 billion. Sporting goods companies, large and small, spend millions of dollars each year developing new and improved products to benefit not only elite athletes, but also amateurs and those who enjoy wearing comfortable trainers and sportswear on a day-to-day basis. Many of these companies also invest significant sums in supporting talented young athletes in communities around the world – youngsters with the promise of becoming the sporting heroes of the future. The IP system and the protection it affords play a key role in enabling sporting goods manufacturers to continue to invest in researching and developing ever more effective and affordable equipment for the athletes of today and tomorrow.

The neon-yellow Nike Zoom Victory Elite spikes – part of the Nike Volt Collection that was specially designed for the Olympic Games – worn by 10,000 meter and 5,000 meter champion Mo Farah, along with some 400 hundred other athletes, weigh a lean 98 grams.



THE TECHNOLOGY RACE

Nearly all sports have benefitted from advances in materials and engineering processes. The natural materials (wood, twine, gut, rubber) used to make the equipment of yesteryear have been progressively replaced by a wide range of highly sophisticated, man-made materials, including alloys and polymers. Equipment made from these lighter, more durable materials has allowed athletes around the world to minimize injury and to push the boundaries of their performance.

German entrepreneur Adolf “Adi” Dassler, who founded adidas was one of the first to successfully market a technologically enhanced sporting good in the form of his innovative semi-cut football shoe with a lightweight nylon sole and screw-in studs. Wearing these boots, the German team clinched victory from Hungary in the 1954 World Cup final in Bern, Switzerland. As heavy rain had made conditions very slippery, the German team opted to use Adi Dassler’s innovative boots. Their longer studs gave the players improved grip and better ball control, an advantage that helped them win the match.

Since then, developments in the design of shoes used in all sports have been dramatic thanks to significant investment in research and development (R&D). Today, leading sporting goods manufacturers – such as Nike, Puma, Asics and others – spend more than one percent of their annual global turnover on R&D.

In high-tech (and tightly guarded) test labs equipped with the very latest technology, sports brands work closely with top athletes, measuring and recording their movements to develop equipment for optimal performance. Some even have purpose-built facilities to develop and test equipment under varying conditions. Speedo’s global R&D facility, Aqualab, for example, worked with athletes, coaches, sports scientists, global hydrodynamics experts, optical engineers and psychologists to develop its groundbreaking Fastskin Racing System®. This comprehensive range of swimwear and equipment works

Photo: Adidas

adidas®



asics®

Adidas founder Adi Dassler’s belief that “light equals fast” is encapsulated in the concept of adizero. Developed in Japan, the adizero range incorporates traditional hand-crafted techniques and uses breathable high-tech fabrics. Developed with American sprinter Tyson Gay and British heptathlete Jessica Ennis, it features a 1.3mm carbon plate to minimize energy loss and permanent nano-ceramic compression pins to optimize propulsion for greater speed.

Nike, Puma, Asics and others spend more than one percent of their annual global turnover on R&D.



Michael Phelps, the most decorated Olympian of all time, has partnered with Speedo since 2001. Speedo's IQ Fit technology developed by Aqualab, the Fastskin3 Cap and Fastskin3 Super Elite and Elite Goggles, ensure optimal hydrodynamics. Worn together, full body drag force can be reduced by up to 5.7 percent which can result in improved performance.

together to enable swimmers to cut through the water with maximum efficiency. It is in these sophisticated labs that the sports technology race is run.

The world's lightest sports shoes are featherweight and crammed with technology. The neon-yellow Nike Zoom Victory Elite spikes – part of the Nike Volt Collection that was specially designed for the Olympic Games – worn by 10,000 meter and 5,000 meter champion Mo Farah, along with some 400 other athletes, weigh a lean 98 grams. Adidas' adizero Prime SP sprint spike developed with American sprinter Tyson Gay and British heptathlete Jessica Ennis also comes in at under 100 grams.

High technology is the name of the game – the key formula driving the development of sophisticated new products. These, in turn, result in the inspiring record-breaking performances that the media and sports enthusiasts all over the world love to see.

SMART WEAR

Technology convergence and smart sportswear are the latest buzz in sporting goods innovation. The growth prospects for sport high tech are such that many non-sports brands are eager to capture a slice of the market. Leading manufacturers of consumer electronics, including Apple, Nokia and Samsung, are working closely with top sports brands to develop new sports-related technologies (and new revenue streams). Apple Inc., for example, has already made inroads into the sector with its Nike + iPod sports kit which, thanks to sensors in the Nike+ shoes, enables iPod users to obtain real-time feedback during workout sessions and to track their performance.

In January 2012, Apple obtained a patent (US Patent 8,099,258) for a "smart garment" on which advanced sensors are affixed that transfer data – such as location information, physiometric data of the wearer, garment performance and wear data – to an external data processing device such as a portable digital media player linked to a computer server.

Estimates suggest that sport sensor sales will rise from 20 million in 2011 to around 170 million by 2017. Little wonder that there is such interest in this buoyant market which promises to give rise to new joint ventures and licensing arrangements. The success of such ventures will hinge, in large part, on effective IP asset management and access to affordable, efficient and user-friendly IP services, such as WIPO's Patent Cooperation Treaty (PCT).

WINNING DESIGNS

The sporting goods of the 21st century symbolize sport, lifestyle and fashion. Product design, whether it is retro or forward-looking, is pivotal to a product's commercial success. Protecting the rights in those designs is equally important. Design rights (referred to as design patents in the US) are an important tool enabling sporting goods manufacturers to defend against infringement. Earlier this year, for example, Nike filed a complaint in the US District Court of Nevada against an Asian footwear manufacturing company, claiming that 23 of its registered design patents had been infringed (see: www.scribd.com/doc/80766087/Nike-et-al-v-QiLoo-International).

The importance of IP in the business strategies of sporting goods companies cannot be overstated. It is a key factor in enabling companies to remain competitive, as well as an essential element in the battle against counterfeiters, to which sporting goods manufacturers all too often fall prey. The Sporting Goods Manufacturers Association (SGMA), the trade association of leading industry sports and fitness brands, estimated that the retail value of fake sporting goods seized by customs and enforcement authorities in 2010 in the US alone was some US\$1.4 billion.

Russian tennis star Maria Sharapova signed a sponsorship deal with leading tennis racket manufacturer HEAD in January 2011. Ms. Sharapova uses the YouTek™ Instinct IG Series of tennis racket which features HEAD's innovative hybrid-composite Innegra™ technology for reduced vibration on ball impact allowing greater control. The slim aerodynamic frame geometry of the racket head also increases the manoeuvrability of the racket allowing for higher swing speeds.

The Under Armour® Biometric Compression Shirt measures various aspects of performance during sports activity, such as heart rate and G-force. The data can also be broadcast in real time on stadium display screens.





MAKING A MARK

While patents and design rights are extremely important in safeguarding cutting-edge technologies that have broad consumer appeal, sporting goods companies live by the trademarks that underpin their brand identity. The ability to obtain trademark protection rapidly and cost-effectively in multiple markets is essential in today's commercial environment. WIPO's international trademark registration services can be particularly useful in this respect. They offer sporting goods companies, large and small, a quick, easy and affordable way to register their trademarks in multiple countries. This, of course, is a key first step in building brand recognition and value.

In its 40-year existence, Nike and its iconic swoosh has captured the imagination of consumers and become one of the world's best known sports brands, enjoying near universal appeal with 97 percent global recognition. This simple and memorable mark – valued in 2011 by Interbrand at some US\$14.528 billion – contributes significantly to the company's image, value and performance.

A key advantage enjoyed by sports brands in major sporting events is the fact that, unlike other official sponsors, sports brands hold center stage. In these high-profile events, all eyes fall on the athletes wearing or using branded equipment. Some brands seek to further enhance their visibility by, for example, adopting striking colors – such as the luminous yellow Nike Volt Collection – that stand out against a team's strip. This practice, however, is not always looked upon favorably by leading sports event organizers and right holders.

Such “free-of-charge” exposure seems inappropriate to them in light of the large sums paid – an estimated US\$1 billion at the London 2012 Olympic Games alone – by official sponsors in order to be associated with high-profile sports events. Periodic attempts are made by some sports governing bodies to limit such exposure by, for example, reducing the size and visibility of logos on sports apparel or equipment. Efforts are also made to temporarily suspend advertising campaigns featuring top athletes prior to, during and shortly after a major sports event, even if such advertising is unrelated to it.

The sporting goods industry and its representatives, however, believe that the visibility of their logos at these events is merited and should not be curtailed, particularly in light of the substantial investments the industry continues to make – both in kind and concretely in supporting sports federations, clubs and the athletes themselves. Without the industry's continuous investment in developing better products, the attractiveness of top-tier sporting events would diminish, and consumers in general would no longer benefit from innovative benchmark developments, primarily in the field of continuous product improvements.

Sporting goods are present in almost every sporting pursuit. They can help competitive athletes reach their full potential, inspiring new generations to take part. They also make community-based sports a more comfortable, fun and rewarding experience. As the global interest in sport grows, the business relationships that characterize the industry will become more complex. Strategic and effective IP asset management is a critical factor in forging fruitful intra-industry cooperation and fair trade. ♦

COSTA RICA BUILDS RESPECT FOR IP RIGHTS

Photo: ART-Costa Rica



Since its establishment in December 2002, Costa Rica's Administrative Registration Tribunal (ART) has made great strides in boosting intellectual property (IP) awareness in the country and in instilling confidence in the national IP system. In the lead up to the its 10th anniversary celebrations, WIPO Magazine sat down with ART's President, Ms. Guadalupe Ortiz, to learn more about the Tribunal's work and its plans for the future.

BACKGROUND

Costa Rica's Law No. 8039 on Procedures on Enforcement of Intellectual Property Rights, enacted in 2000, grew out of the country's commitment to implement the provisions of the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and its recognition of the importance of IP as a catalyst for economic growth and development. This law provides for the establishment of ART, an independent, specialized body to adjudicate appeals relating to decisions and other actions taken by the country's national IP registries. The Tribunal, attached to the Ministry of Justice, is a lynchpin in the country's strategy to build greater understanding and respect for IP rights and the IP system as a whole. The Tribunal is the only one of its kind in Latin America that handles cases involving both intangible and tangible rights.

BUILDING CONFIDENCE IN THE IP SYSTEM

In its 10-year existence, the Tribunal has handled some 6,500 cases, of which only around 20 have been passed to the law courts for resolution. "This reflects the high level of confidence that users have in the system. One of the strengths of our system is that we offer a streamlined and transparent service. Applicants that wish to appeal the decision of one of our national IP registries can defend their rights, and have a second opportunity to present their case," Ms. Ortiz notes. "We strongly embrace the principle of public service. Users have quick and easy access to the law and are guaranteed an opportunity to discuss all the issues relating to their case," she explains. Regardless of whether or not the Tribunal's decision is favorable to users, they benefit from a well-argued legal explanation as to the rights or wrongs of their case and

From left to right: Tribunal judges Lic. Kathya Mora Cordera, MSc, Guadalupe Ortiz Mora, MSc, Normal Ureña Boza, Lic. Ilse Diaz Diaz, Dr. Pedro Suarez Baltodano.

are satisfied that they have had a fair hearing. “Even though users have the option to use the regular court system, the tendency has been for them to come to the Tribunal. The low number of appeals that have gone to court suggests that users are satisfied with and persuaded by the Tribunal’s explanation and analysis of their case,” says Ms. Ortiz.

The fully autonomous nature of the Tribunal, which has its own budget and governance system, is designed to ensure that its decisions are impartial. Five judges specializing in IP and appointed by the Ministry of Justice preside over cases. In this way, users are sure that their cases are heard by experts who are well versed in, and familiar with the complexities of IP law. The enhanced IP knowledge of this small group of specialist judges offers two main advantages. On the one hand, it means cases are handled in an accurate and timely manner. On the other hand, decisions relating to cases involving similar circumstances are more consistent, leading to more predictable outcomes and greater business confidence. “We are convinced that legal security is the basis of a robust and effective intellectual property system. Our work is to enforce IP rights and to provide access to all aspects of IP law through a mechanism that users can have confidence in and trust,” Ms. Ortiz says. “The direct benefit to users is that they acquire a better understanding of why their applications were unsuccessful before the national IP registry and, of course, what they have to do for their applications to be successful,” she notes. “This is not only of immediate benefit to users but, in the longer term, it helps build a broader and more robust understanding of, and confidence in, the IP system among the user community – both at home and abroad.”

STRIVING FOR EXCELLENCE

Since its inception, the Tribunal has sought to keep abreast of new developments in IP law and to maintain the quality of its decisions. A program of continuous IP training and regular participation by Tribunal specialists in relevant national and international forums helps ensure that officials keep pace with emerging trends and new legal developments.

These and other measures have enabled the Tribunal to successfully establish its reputation as a forum of excellence, delivering the highest quality public service and promoting broader understanding of IP within the country. In the field of trademarks, for example, the Tribunal strictly monitors the registration of well-known marks in Costa Rica. Its objectives are twofold: first, to send a clear message to the international business community that their trademark rights will be upheld and respected in Costa Rica; and second, to protect consumers and the public at large from being duped into purchasing substandard or fake goods.

Over the last decade, the Tribunal has built up a significant case law. “Our jurisprudence is already quite mature but we continue to follow the international evolution of IP law and to monitor legal opinions on emerging IP issues. IP is a fast-moving field, and we have to keep up to speed with the latest developments,” Ms. Ortiz observes. “A hallmark of the Tribunal’s success over the past decade is the quality of the decisions, the introduction of international standards and a clear view about the fundamental importance of the due process of law,” she adds. An online database offers both specialists and the general public user-friendly access to the Tribunal’s cumulated jurisprudence and legal resources. This invaluable



legal resource not only supports ART in its work, but is also serving to improve understanding of IP across the country.

THE INTER-INSTITUTIONAL COMMISSION FOR IP

While the Tribunal is a key element in the country's strategy to promote greater respect for IP and to enforce IP rights, it does not operate in isolation. The Tribunal is part of a coordinated national IP strategy involving a broad range of institutions including, for example, customs authorities, government agencies and those from the academic and business communities, which come together in the context of the Inter-Institutional Commission for IP. The Commission's purpose is to ensure the coherent and coordinated development of the country's national IP strategy. "Through this national strategy all the actors are unified and work together very closely. We each have our own clearly defined functions, but we are all working together as a network within the framework of the national IP strategy," Ms. Ortiz explains.

SUPPORTING ECONOMIC DEVELOPMENT

By providing greater legal security around IP, which in turn boosts business confidence, the Tribunal plays a pivotal role in creating a fertile and attractive commercial environment that encourages and promotes innovation and attracts foreign direct investment. "It is important that we understand that IP is an instrument for development," Ms. Ortiz observes. "IP is a key aspect of the country's future development. Costa Rica is an open country where international trade is very important. A robust and effective IP system is a key factor in attracting foreign investors; it is also pivotal in fostering innovation which, now that we have a national IP strategy in place, is our next major development challenge," Ms. Ortiz says. "Free and easy access to a modern, user-friendly and trusted IP system is a key ingredient in promoting the broad use of IP for the country's future development."

The Tribunal's work is instrumental in enhancing the rules and working practices of the national IP registries which are obliged by law to observe its decisions. "We work very closely with the registries to change the rules for the better," Ms. Ortiz explains. "Sometimes with the right implementation you can solve problems," she adds.

THE FUTURE

Intellectual property promises to become increasingly central to Costa Rica's future economic development. This, in turn, will generate "a wider and more complex use of IP in the country," Ms. Ortiz suggests. "Our future will involve an expanding caseload and increasingly complex cases," she predicts. Underlining the importance of ensuring that the Tribunal's expertise keeps pace with the rapidly evolving technological landscape and legal best practices, Ms. Ortiz anticipates "huge challenges ahead, because the decisions the Tribunal is going to take are going to become increasingly complex." She is, however, confident that the Tribunal will succeed in continuing to support the country's development objectives. "We are on the right track. The Tribunal is bolstering the security of IP rights, and our experience over the last 10 years suggests that the user community prefers to use the Tribunal over the courts."

The Tribunal is set to move to a new building, currently under construction, in early 2013. "This will enable us to further enhance the services we offer our users," Ms. Ortiz notes, referring to plans to introduce oral hearings and various online services. CJ ♦

COLA BRANDS

rearm with music



Photo: iStockphoto / @IaroslavDanyichenko

*By Simon Dyson,
Editor, Music & Copyright*

Coca-Cola and Pepsi have long been fighting a cola war, and although entertainment has formed part of both brands' marketing campaigns for decades, music is increasingly becoming an essential weapon. From live concerts to TV programs, social media, digital, film and music discovery, Coke and Pepsi are deploying artists across the globe to engage the world's young people.

In Latin America, Coca-Cola says it plans to change the way it engages with younger people by bringing entertainment to the fore in its marketing. One of the first events in this new initiative was a free outdoor concert with Paul McCartney in Mexico City's central plaza, the Zocalo, in May, before an estimated crowd of 200,000 people.

The company also pulled in more consumers via its Coca-Cola.TV online platform by live-streaming the three-hour event. The concert attracted half a million unique viewers who spent an average of 42 minutes watching Paul McCartney perform. The campaign aimed to harness the power of "social TV" – facilitating conversations around television shows – in encouraging young people to contribute to the conversation around the concert using Facebook and Twitter.

Coca-Cola also mixed music and TV for the London Olympic Games with its sponsorship of a 10-episode TV series, *Beat TV*, which aired via a number of broadcast partnerships. The program featured live musical performances alongside celebrity and athlete interviews, targeting teens in more than 30 countries. The brand says its aim was to capture the "vibe" of London – to convey the social aspects of the games rather than the sporting achievements.

PEPSI TEAMS UP WITH BILLBOARD

Not to be outdone on the social side, in early June, Pepsi joined forces with music magazine *Billboard* to announce a Summer Beats concert series offering fans "Twitter-enabled" performances across multiple genres. The gigs began with a June 26 show in Los Angeles, followed by a Nashville concert at the end of July and a season finale in New York in late August, featuring exciting new artists such as Katy Perry, Gloriana and Ne-Yo at venues catering to crowds of up to 1,000 people. Fans were able to watch the concerts via live-streaming on the Pepsi Twitter page, with Pepsi promising digital participants the ability to influence elements of the performances in real time.

The concerts form part of the brand's global "Live for Now" marketing campaign which Twitter signed up to in May when it became Pepsi's global music partner. In addition to coming onboard for the Summer Beats concerts, the microblog is now the brand's destination of choice for helping people discover new music, with the partners producing a new music-video series that provides a weekly overview of artists, music and music news trending on Twitter.

Pepsi is also offering free music downloads from the Amazon.com MP3 Store to those who follow @pepsi on Twitter and who slot the hashtag #PepsiMusicNOW into their tweets. Also part of the Live for Now campaign, in June, Pepsi signed an agreement with Viacom to extend the campaign over a number of the US media giant's



Photo: Rouse & Co. International, Intellectual Property

Coca-Cola sees value in music-based film. Last year, it deployed its Burn energy-drink brand to make *Nothing but the Beat*, a full-length documentary chronicling the life and career of David Guetta.

television properties, including Country Music Television (CMT) and MTV. CMT viewers who tweeted images with the hashtag #countrynow had the chance to attend the recent CMT Music Awards as “Pepsi Now photo correspondents,” while those tweeting images tagged #mtvnow throughout the summer could hope to be one of three correspondents to attend the MTV Video Music Awards in September.

COCA-COLA PREFERS SPOTIFY

Whereas Pepsi has a digital friend in Twitter, Coca-Cola has been cozying up to Spotify. The brand announced a strategic partnership with the music-streaming service in April, with a focus, similar to the Pepsi-Twitter alliance, on discovering new music. Spotify now provides the key underlying technology for Coca-Cola’s music around the world, while the brand is integrating Spotify into its Facebook presence and timeline, creating what the two partners call “a seamless social music experience.”

Coca-Cola says it aims, with the help of Spotify, to create a “truly global music network,” and with the brand’s 40-million-strong Facebook audience spread across scores of markets, it already has a sizeable following to exploit.

Coca-Cola also sees value in music-based film. Last year, it deployed its Burn energy-drink brand to make *Nothing but the Beat*, a full-length documentary chronicling the life and career of David Guetta. The movie launched in cinemas and on TV in

more than 20 countries and featured interviews with performers such as Will.i.am, Snoop Dogg, Ludacris and Usher.

Katy Perry is the artist of choice for Pepsi when it comes to filmmaking, and the brand is supporting her upcoming film *Katy Perry: Part of Me 3D*, which was released by Paramount Pictures on July 5. There are co-branded television and radio advertising spots, along with digital advertising and retail displays, all featuring Pepsi’s *Live for Now* tagline.

GLOBAL COLA WARS

Pepsi’s first foray into actual music-related movie-making dates from 2007, when it released the Arabic film *Bahr al Nujoom* (Sea of Stars), featuring Near-East artists such as Wael Kafouri, Carole Samaha, Ahmed Al Sharif and Ruwaida Al Mahroogi in a fictional music festival. Pepsi provided an estimated US\$6 million to make the film.

That initiative also shines a light on the geographic spread of the cola brands, which are using music to communicate with consumers in almost every country on the planet. In 2009 in China, for example, Pepsi launched its own record label, QMusic, with a view to signing up local artists. Once part of the stable, the commercial songs written by these artists became an integral part of the local marketing effort, appearing in ads and endorsing products.

QMusic was also closely linked to the Pepsi-sponsored *Battle of the Bands* talent show on Shanghai TV, in which 10 bands performed over the course of a series with the top act winning a recording contract with the label.

In the same emerging-talent vein in South Asia, last year Pepsi demonstrated its desire to get closer to young people by installing the Pepsi Dub Station, a dedicated stage for dubstep (a genre of electronic dance music) and drum ‘n’ bass, at a multigenre three-day music festival in Pune, India. The stage was part of a campaign launched in 2008 called Youngistaan, a term the brand coined to represent a world of Indian youth.

In the same market, in July, Coca-Cola launched the second season of its Coke Studio TV show on MTV India. The program is a broad mix of music genres, ranging from traditional eastern to modern western. The first series attracted more than 40 million viewers and 2 million views on YouTube, while the CokeStudio@MTV Facebook page attracted close to 750,000 fans. Coke Studio originated across the border in Pakistan, where it is in its fifth season. ♦

CULTURAMA: A JOURNEY THROUGH TIME

CULTURAMA, a unique, interactive multimedia program which was on display at WIPO earlier this summer, opens a window onto Egypt's spectacular cultural and natural heritage. It offers an immersive virtual journey across time, with material spanning 5,000 years of human civilization from the pharaohs of Ancient Egypt to the present day. Mr. Mohamed Farouk, who conceptualized and developed CULTURAMA with his colleagues at the Center for Documentation of Cultural and Natural Heritage (CULTNAT), in Cairo, Egypt explains how the project came about and its principle objectives.

Karnak Temple is a vast open-air museum and the largest ancient religious site in the world. Approximately 30 pharaohs contributed to the buildings, enabling it to reach a size, complexity and diversity not seen elsewhere.

The Nilometer in Cairo is a unique historical site. It was used to measure the levels of the Nile River during the annual flood season; to regulate water distribution and to calculate the levels of taxes to be paid.



WHAT IS CULTURAMA?

CULTURAMA (short for cultural panorama) brings to life a panoply of fascinating and compelling historical events that have profoundly influenced human civilization. It is the first fully interactive multimedia system that offers striking panoramic displays of cultural heritage information on a huge semicircular screen, using nine high-resolution video projectors controlled by a single computer. Using this platform, it is possible to seamlessly display information such as historical time lines, archeological sites and digitally restored artifacts in ways that cannot be achieved using standard computer displays. Built with readily available off-the-shelf computer equipment, CULTURAMA offers cultural institutions a cost-effective, flexible and mobile solution for delivering cultural content with minimal maintenance costs.

INSPIRATION FOR THE PROJECT

Fully engaged in CULTNAT's main mission, to document the country's rich heritage, Mr. Farouk recalls that he and his colleagues were keen "to have something new to disseminate this information, not just regular channels like video clips or books. We wanted something that would capture the imagination of a much wider audience." Identifying the relevant technologies to build the platform proved quite a challenge forcing the team to think out of the box. The technological solution they came up with was granted a patent by the Egyptian Patent Office (patent number 23651) in 2007 and is the subject of an international patent application – WO2005086127 – under WIPO's Patent Cooperation Treaty.

The idea behind CULTURAMA took shape in 2001 when Mr. Farouk and his team began documenting Egyptian tombs,

many of which are closed to the public. "We thought, why not create a digital copy and a setting that makes it possible for the public to enter these tombs virtually," he explains. "We started looking around for the components that would make it possible for us to turn this idea into reality. This was quite a challenge at that time, because the technological landscape was quite different from what it is today. When we finally developed and fine-tuned the technology and our methodology, it soon became clear that we would be able to use it to introduce the public to many different types of information," he explains.

AIMS OF THE PROJECT

In developing CULTURAMA, Mr. Farouk and his team had two main objectives. First, to develop a low-cost, user-friendly platform that makes it possible to deliver cultural and historical information in a clear, concise and compelling way. "If you have an attractive methodology for delivering cultural information, it becomes more meaningful to the audience you are reaching out to," he observes. The project's second objective is to spread the idea of immersive systems and virtual museums to ensure the broadest possible access to the world's cultural heritage. This is something Mr. Farouk is passionate about. "I have a dream that all human heritage will be accessible to everyone in this way. With a tool that highlights the similarities between cultures, we can create a platform for dialogue, enabling us to better understand each other. We really need this in today's world."

SPANNING 5,000 YEARS OF HISTORY

CULTURAMA recounts three different periods of Egyptian history: Ancient Egypt, highlights of Coptic and Islamic civilizations, and Modern Egypt. The Ancient Egyptian period displays the





timeline of the Pharaohs, from 3000 BC to the emergence of the Gregorian calendar. This section features a chronology of well-known kings and multiple layers of background information accessible by clicking on highlighted icons. For example, by clicking on Thotmosis III it is possible to access a room in the Karnak Temple (the largest temple in the world) known as the “botanical garden”, the walls of which are inscribed with a wide range of natural flora and fauna common in Egypt at the time of his reign. Viewers can also obtain additional information about the various animals, birds and plants that are depicted by clicking on them.

The Ancient Egyptian time line also features the Rhind mathematical papyrus, considered one of the most famous mathematical papyri of the period. The Rhind papyrus is five meters long and contains 86 different mathematical problems and their solutions. CULTURAMA has made it possible to magnify and display the document in its entirety, enabling users to examine it closely and zoom in to the mathematical problem of their choice to obtain an English translation of the featured hieroglyphic text.

CULTURAMA also offers seamless panoramic displays of important archeological sites, such as the Karnak Temple complex, the Nilometer in Cairo, and the Pyramids of Giza. These displays are a key feature of the sections covering Coptic and Islamic civilizations and Modern Egypt. For example, the Modern Egypt section includes a panoramic view of Cairo from the Nile and another of the port of Alexandria as seen from the sea. By clicking on specific landmarks, users can access different layers of relevant information. A highlight of the panoramic view of Cairo, for example, is that by clicking on the Qasr al-Nil bridge, users access archival footage of the daily life of the bridge filmed by the Lumière brothers in 1895.

CULTURAMA takes audiences, young and old, on a fascinating journey that traces the outstanding achievements and enduring influence of ancient Egyptian civilization through to the present day. It is both an attractive educational tool and an enthralling cultural experience that many museum design experts and managers perceive as an essential element for every important museum.

CULTURAMA is currently available at seven permanent installations in Egypt’s largest cities, and has travelled the world featuring in international exhibitions in over 10 countries. A new more highly interactive 3-D version of the platform is due to be released later this year. CJ ♦

The room known as “the botanical garden” in Karnak Temple features walls inscribed with a variety of flora and fauna common at the time of the reign of Thotmosis III.

The Pyramids of Giza are the most famous monuments of Ancient Egypt. These massive stone structures are thought to have been built some 4,500 years ago.



UK'S GROWTH AGENDA

includes tax relief for innovation & IP

By *Ian Williams*, Chairman,
Campbell Dallas LLP, Scotland



Photo: Campbell Dallas LLP

Ian Williams has over 25 years' experience in the energy sector, working with renewable energy businesses and advising global oil service companies on their UK and international operations. He is Chairman of Campbell Dallas LLP, one of Scotland's leading independent chartered accountants with cross-cultural oil industry expertise and a strong presence in the renewable energy industry.

As part of its 2012 budget announcement, the UK government stated it would introduce a new corporation tax rate for companies that generate profit from a product they have actively developed and patented. This preferential tax regime known as Patent Box will come into effect on April 1, 2013. What are the benefits of this new tax regime, and what could it mean for the UK economy?

Historically, the UK has had an unsympathetic tax system in terms of research and development (R&D) with tax relief offered on capital expenditure rather than for company incentives to develop new technologies and processes. As a result, many companies registered their intellectual property (IP) in jurisdictions outside the UK to have the resulting income taxed at more favorable rates. For instance Ireland offers up to 25 percent tax relief on R&D revenue and capital expenditure and has a corporation tax rate of 12.5 percent for trading income derived from R&D.

In 2010, the UK government announced plans to invest over £200 million to create a network of Technology and Innovation Centres to stem this migration. The UK is home to less than one percent of the world's population, but its scientific community produces eight percent of the world's scientific papers, has a citation share of 12 percent (second only to the US) and over 80 Nobel prizes for scientific achievement. The introduction of these tax changes is a bold move by the government to motivate UK companies to utilize the talent that exists in the country and to further the work already being done.

The UK is in a prime position to maintain and build on its reputation as a market leader in R&D. The infrastructure needed is already in place, and these new government incentives should help convince companies to remain in the UK. Aberdeen, for example, with its thriving oil and gas industry stands to benefit greatly from Patent Box. Companies involved in meeting the many challenges of deepwater production in the North Sea are regularly developing new technologies.

The UK is the leading G8 industrialized country in research productivity, with 45 research papers per billion pounds of gross domestic product (GDP), compared to 25 in the US and 15 in Japan. It is also home to four of the world's top 10 universities. The government's tax incentives will enable greater collaboration and increasing



numbers of joint ventures between companies and universities, to push the UK's knowledge base a few more rungs up the innovation ladder.

In addition to a tangible increase in R&D activity is the possibility of additional monetary opportunities to fund it. With banks increasingly taking a step back from gap funding, there is a greater need for investment from private equity sources. Patent Box allows investors to see that, in addition to a tax relief on their initial investment, once a product or process is marketable, there will be a cash flow to repay them.

From next April, companies in the UK will, in one year, effectively get tax relief to the tune of 225 percent, or £2.25 for every pound invested in patents. This is great news for global companies as they will be able to combine the internationalization of their operations with their intellectual property (IP) strategies. The benefit of these new tax structures can therefore extend well beyond the UK.

Currently the main rate of corporation tax in the UK is 24 percent. Patent Box will allow companies to apply for a rate of 10 percent on all profits attributable to qualifying patents, whether they are paid separately as royalties or embedded in the sales price of products. For companies selling patented products or licensing their patents, the calculation begins with the total profit derived from the sale of the patented product/process or with the licensing of the product/process.

Patent Box forms part of the government's growth agenda. The aim of the regime is to provide an additional incentive for companies to retain and commercialize existing patents and to develop new, innovative patented products. It is designed to encourage companies to locate the high-value jobs associated with the development, manufacture and exploitation of

products patented in the UK, cementing the country's position as a world leader in patented technologies. It promises to further enhance the competitiveness of the UK tax system for high-tech companies that make a profit from patents.

Any patent is eligible as long as it has profit-generating potential and the company holds an exclusive right to license it. The new Patent Box incentive is open to any UK company that innovates and sells products stemming from work carried out within the UK, and that has patents initially commercialized after November 29, 2010. Companies will need to comply with certain conditions, however, before they can qualify for the new incentives.

The patent must have been granted by the UK's Intellectual Property Office under the Patent Act 1977 or recognized by the European Patent Office, and must have significant profit-generating potential. For example, a component that makes up part of another product, such as a handle on a drill, will not qualify for the scheme because it will not drive the profit of the product, even if the product is the first of its kind.

The scheme also specifies that the patented invention is to be developed in the UK. Should a company based outside the UK begin development of a patented product before taking it to the UK for completion, the company must re-register it in the UK. Also, in order to be eligible for the 10 percent corporation tax rate, the company must be actively involved in developing and exploiting the product – simply owning the patent right is not enough.

This new scheme will help make the UK's tax system one of the most competitive in the world. This is good news for companies already operating in the UK and an interesting business opportunity for newcomers. ♦



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