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of Hepatitis C

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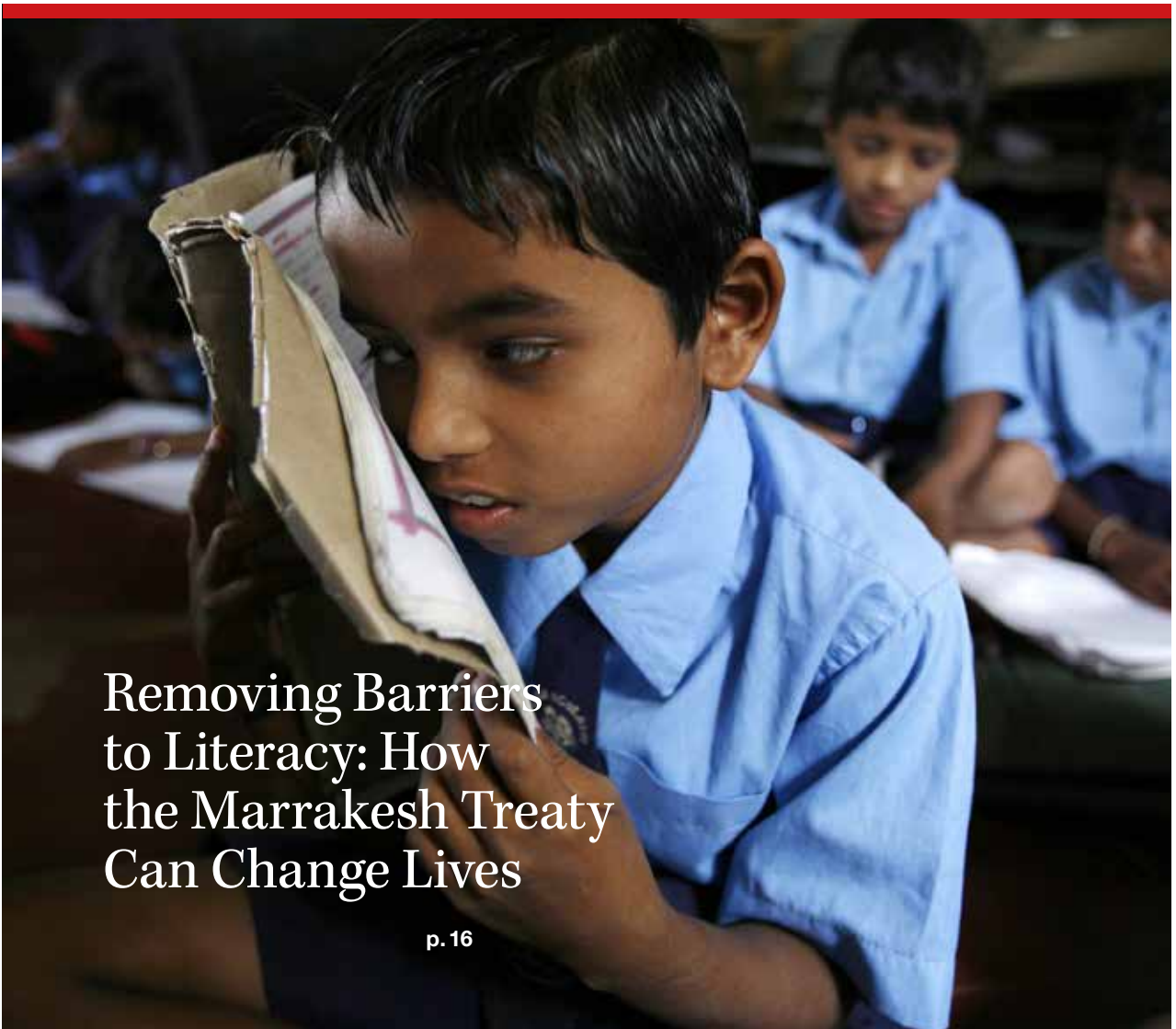
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# Gilead Targets Elimination of Hepatitis C

By Catherine Jewell, Communications Division, WIPO

An estimated 185 million people are infected with the Hepatitis C virus (HCV), many of them in low and middle income countries. Referred to as “the silent killer”, HCV often remains undetected until serious liver damage (cirrhosis or liver cancer) has developed. Many living with the virus develop chronic infection and until recently required a complex regimen of antiviral therapy in combination with interferon and ribavirin; a treatment that is complex to administer and difficult for patients to tolerate. As such, it is not globally available and most patients in need go untreated. Scientific innovations in antiviral drugs, however, have led to simpler, safer and more effective therapies with higher cure rates. The US-based pharmaceutical research company, Gilead Sciences, Inc., has recently gained regulatory approval in the US for two new ground-breaking treatments. Gilead is now working to broaden access to these new treatments. Gregg Alton, Executive Vice President, Corporate and Medical Affairs at Gilead, shares his views on the challenges associated with this endeavor.

## ***What is the significance of Gilead’s new HCV treatments?***

Old HCV therapies are very toxic, difficult to administer, poorly tolerated by patients and, for the most part, not available to people in developing countries. With Gilead’s new products, which are real game changers, we can dramatically alter the global HCV landscape.

## ***What are these new therapies and how do you plan to deliver them globally?***

We are focusing on delivering innovative products that are simple to use and with high cure rates. So far, we have developed Sovaldi® (sofosbuvir) which is effective in curing HCV genotypes 1 to 4, and Harvoni®, a fixed-dose combination of ledipasvir and sofosbuvir, which is particularly effective in treating HCV genotype 1 infection. We also have a pan-genotypic regimen (GS-5816) in phase 3 development – which really adds promise for curing HCV globally.

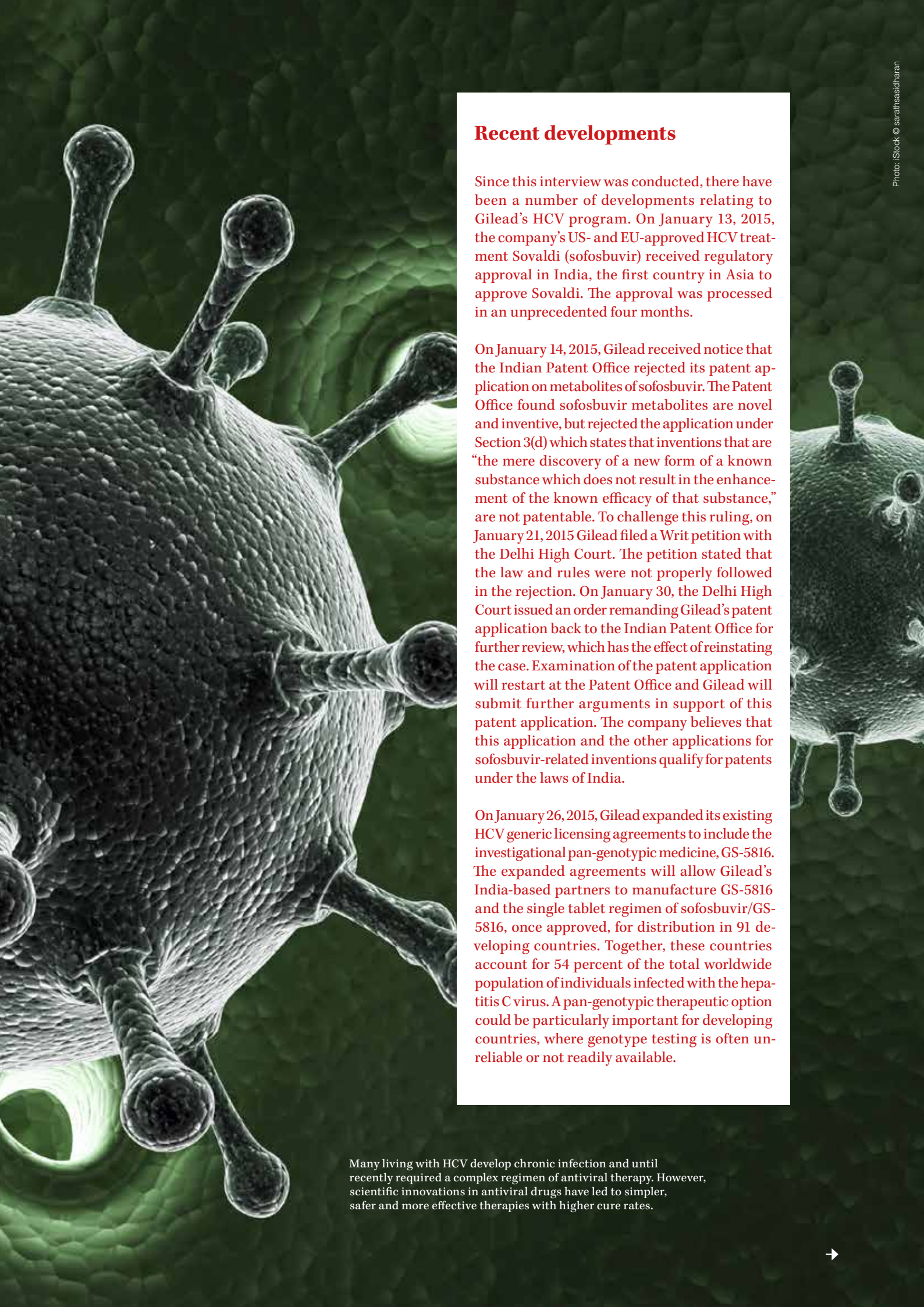
When we started work on a cure for HCV in 1986, we were getting a 6 percent success rate; with these new products we are curing 94 to 100 percent of HCV patients. Now, there really is an opportunity to eliminate HCV infection globally, but this will require innovative policy approaches to access.

In September 2014, we signed licensing agreements with seven Indian-based generic pharmaceutical companies to expand access to our HCV medicines. The 91 developing countries covered in the agreements account for around 54 percent of the total global infected population, that is, over 100 million people. Such licensing agreements made a big difference to our ability to expand global access to our HIV treatments (see *Innovative licensing expands access to HIV treatments – [www.wipo.int/wipo\\_magazine/en/2012/06/article\\_0005.html](http://www.wipo.int/wipo_magazine/en/2012/06/article_0005.html)*).

## ***What are the key challenges you face in broadening access to HCV medicines?***

Medically, treating HCV globally is a huge challenge because it has six genotypes, each of which requires tailored treatment. A pan-genotypic option is particularly important for resource-poor developing countries lacking the diagnostic capacity for genotyping. Our investigational pan-genotypic regimen (GS-5816), which we hope will be available by 2016, can treat all six genotypes with the same course of therapy at cure rates of over 90 percent in each genotype. This product will specifically help to overcome the diagnostic challenge in developing countries.

The biggest policy challenge is funding. We can do a lot at Gilead in terms of R&D, regulatory work, clinical development and pricing, but at the end of the day we need the commitment of national governments and international donors to make this happen. It is going to take a lot more than low-cost drugs to get patients into care. Success in broadening access to treatment hinges on NGOs and patients advocating for funding and treatment program implementation and on governments investing in developing national healthcare capacity.



## Recent developments

Since this interview was conducted, there have been a number of developments relating to Gilead's HCV program. On January 13, 2015, the company's US- and EU-approved HCV treatment Sovaldi (sofosbuvir) received regulatory approval in India, the first country in Asia to approve Sovaldi. The approval was processed in an unprecedented four months.

On January 14, 2015, Gilead received notice that the Indian Patent Office rejected its patent application on metabolites of sofosbuvir. The Patent Office found sofosbuvir metabolites are novel and inventive, but rejected the application under Section 3(d) which states that inventions that are "the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance," are not patentable. To challenge this ruling, on January 21, 2015 Gilead filed a Writ petition with the Delhi High Court. The petition stated that the law and rules were not properly followed in the rejection. On January 30, the Delhi High Court issued an order remanding Gilead's patent application back to the Indian Patent Office for further review, which has the effect of reinstating the case. Examination of the patent application will restart at the Patent Office and Gilead will submit further arguments in support of this patent application. The company believes that this application and the other applications for sofosbuvir-related inventions qualify for patents under the laws of India.

On January 26, 2015, Gilead expanded its existing HCV generic licensing agreements to include the investigational pan-genotypic medicine, GS-5816. The expanded agreements will allow Gilead's India-based partners to manufacture GS-5816 and the single tablet regimen of sofosbuvir/GS-5816, once approved, for distribution in 91 developing countries. Together, these countries account for 54 percent of the total worldwide population of individuals infected with the hepatitis C virus. A pan-genotypic therapeutic option could be particularly important for developing countries, where genotype testing is often unreliable or not readily available.

Many living with HCV develop chronic infection and until recently required a complex regimen of antiviral therapy. However, scientific innovations in antiviral drugs have led to simpler, safer and more effective therapies with higher cure rates.

With HIV, global donor funding was a critical element in creating a viable and competitive marketplace for antiretrovirals (ARVs) and in lowering prices. The question is: will the marketplace develop for HCV? Will we have the same global commitment to fight HCV? Are we going to see billions of dollars from donor countries to treat HCV in developing countries? At Gilead we are not waiting around for donor funding to come. We are moving now. We believe it is incumbent on national entities to do what they can today.

***What were the key lessons learned in rolling out your HIV access program?***

We believe that tiered-pricing – where countries pay according to their national income and disease burden – in combination with generic manufacturing and distribution in different countries can vastly improve access to medicines. This was our experience in rolling out our HIV access program (which also covers therapies to treat hepatitis B). So this will be a key component of our approach in broadening access to HCV treatment.

We need to work closely with ministries of health around the world to gain their support in obtaining regulatory approval for these products; to establish treatment guidelines; and to create disease awareness programs. We are also open to developing tailored approaches with non-governmental organizations (NGOs) and governments to reach affected populations in middle-income countries.

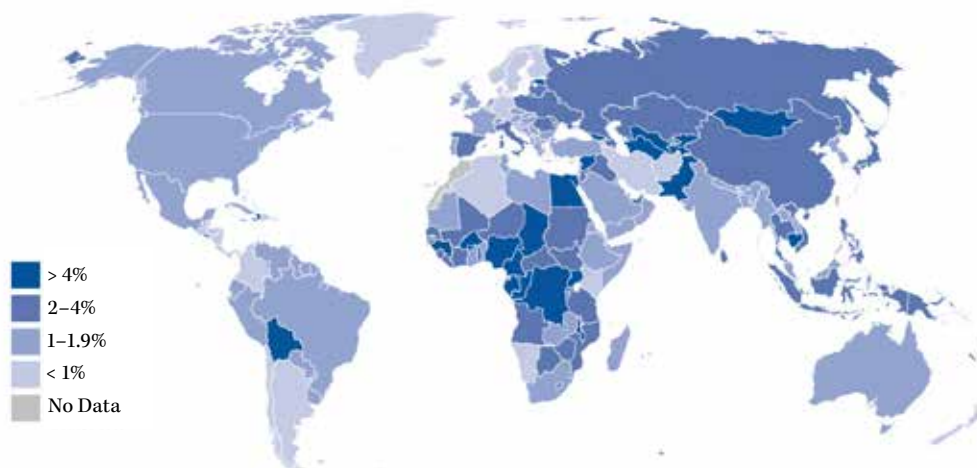
Our experience with HIV underlines the importance of seeking global regulatory approval rapidly. Even before we get to the questions of pricing and access, the fact is we simply cannot sell a product in a country until it is approved. In many countries, regulatory approval hinges on undertaking clinical trials, which can delay getting a product to market by up to three years. Egypt, which has the highest global HCV prevalence, waived its clinical trial requirements for our HCV drugs. This enabled us to market them within one year of regulatory approval in the US. We hope other countries will follow suit.

We are very transparent about our regulatory filing strategy. We generally file in countries where we can reach the most patients, most quickly. A country's disease burden and its readiness to treat patients are important factors in driving our decision to seek regulatory approval. Egypt is an excellent example of a country that has made a strong commitment to treating HCV. Together, we have been able to negotiate a price for Sovaldi of USD300 per bottle, which means USD1,800 for a 24-week regimen. We are in active discussions to bring Harvoni into Egypt. Under current arrangements, around 50,000 patients will be treated by the end of 2015. We hope to significantly scale up treatment over time. In addition to regulatory approvals, medical education and training are key to scaling up treatment. It would also be helpful to have global demand forecasting so Gilead and our generic partners can ensure timely treatment access for patients.

Our partnerships with Indian-based generic pharmaceutical manufacturers, who are world experts in process chemistry with proven track records in quality and consistency, are critical in scaling up manufacturing capacity and helping us to accomplish our goal of ensuring that Gilead's scientific innovation actually reaches the patients who need it.

More than 185 million people worldwide are infected with the Hepatitis C virus (HCV), most of them in low – and middle – income countries. Gilead recently signed agreements with seven Indian companies to manufacture generic versions of its new, more effective HCV treatments. The aim is to enable these companies to quickly scale up production and to expand access to these treatments.

### Global Hepatitis C Prevalence



Source: Lavanchy, D. Evolving epidemiology of hepatitis C virus. Clin Microbiol Infect. 2011; 17:107-115.

The licensing agreements with our generic partners involve a complete transfer of technology, including the transfer of our manufacturing know-how. As an innovator company we do basic research in identifying molecules and developing them clinically. Our generic partners have the capacity for low-cost, large-scale commercial drug manufacturing. The technology transfer enables them to ramp up production of commercial quantities of high-quality, safe and effective product rapidly. The partnership also facilitates regulatory approval because our generic partners can reference Gilead's manufacturing technology and data. To further reduce the time it takes for our partners to reach patients, we are now also licensing molecules that are in phase 3 trials.

#### ***What message is important for governments?***

We hope Governments will seize the opportunity that the new scientific innovations in HCV treatment present and implement HCV treatment programs and improve public health outcomes for their citizens. But to do so requires resources, leadership and cross-sector collaboration. We are looking to work in partnership with governments around the world to implement programs to screen and treat patients with HCV.

#### ***Do you think that intellectual property (IP) enables access to healthcare?***

We believe that IP can and does enable access. We have shown that by fairly and appropriately pricing our products through dialogue with governments and others, and by licensing them to generic manufacturers to increase manufacturing capacity and further reduce prices, it is possible to expand access to affordable medicines.

#### ***How would you like to see the IP debate evolve?***

I would like to see a more rational conversation around IP and access to medicines, one that focuses on how IP could and should be used. Gilead's model has shown that there are unquestionable benefits associated with an IP regime that supports access as well as innovation. But if it is to really change the debate on IP, other companies will need to step forward and adopt similar approaches to managing their IP. In this respect, the Medicines Patent Pool is playing a key role by pulling in other companies, in a way that we could not. The next step, of course, is to extend the model beyond HIV and HCV to other diseases. Why not?

# It's Time to Stand Up to Patent Trolls!

By **Scott Burt**, Senior Vice President and Chief  
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Adam Carolla, one of the most popular podcasters in the US, is sued by a patent troll. The story goes viral. Across the country, state Attorneys General are using consumer protection laws to guard their small businesses from predacious patent trolls. And here is something previously unthinkable: the President of the United States, in the 2014 State of the Union address, urged Congress to “pass a patent reform bill that allows our businesses to stay focused on innovation, not costly and needless litigation.”

The greatest long-term threat to the US patent system does not come from its professional opponents – those large businesses and their political allies who stand to profit from enfeebled patent rights. A deeper harm is caused by unscrupulous patent trolls who use extortionist “demand letters” to victimize small businesses. This practice, we believe, is wrecking public confidence in the US patent system – and by extension, profoundly weakening the long-standing bedrock belief in the great economic benefits conferred by patent-protected inventions.

Yet even as damage caused by demand letters spreads, most legitimate patent licensors, whose businesses depend upon continued legislative and public trust, stand idly by, doing little or nothing to address it. Well-insulated within the patent industry's cozy professional bubble, we are, in effect, fiddling like a modern-day Nero while innovation's Rome burns.

## **FAR-REACHING IMPACT**

Why the disconnect? Most people in the patent licensing industry understand that patent troll demand letters are a significant economic problem for the US small business community, costing millions of dollars in settlement fees and legal costs annually. What is not grasped is that phony demand letters are an even greater political problem for our industry and for the patent system as a whole. Let's quickly review the problem.

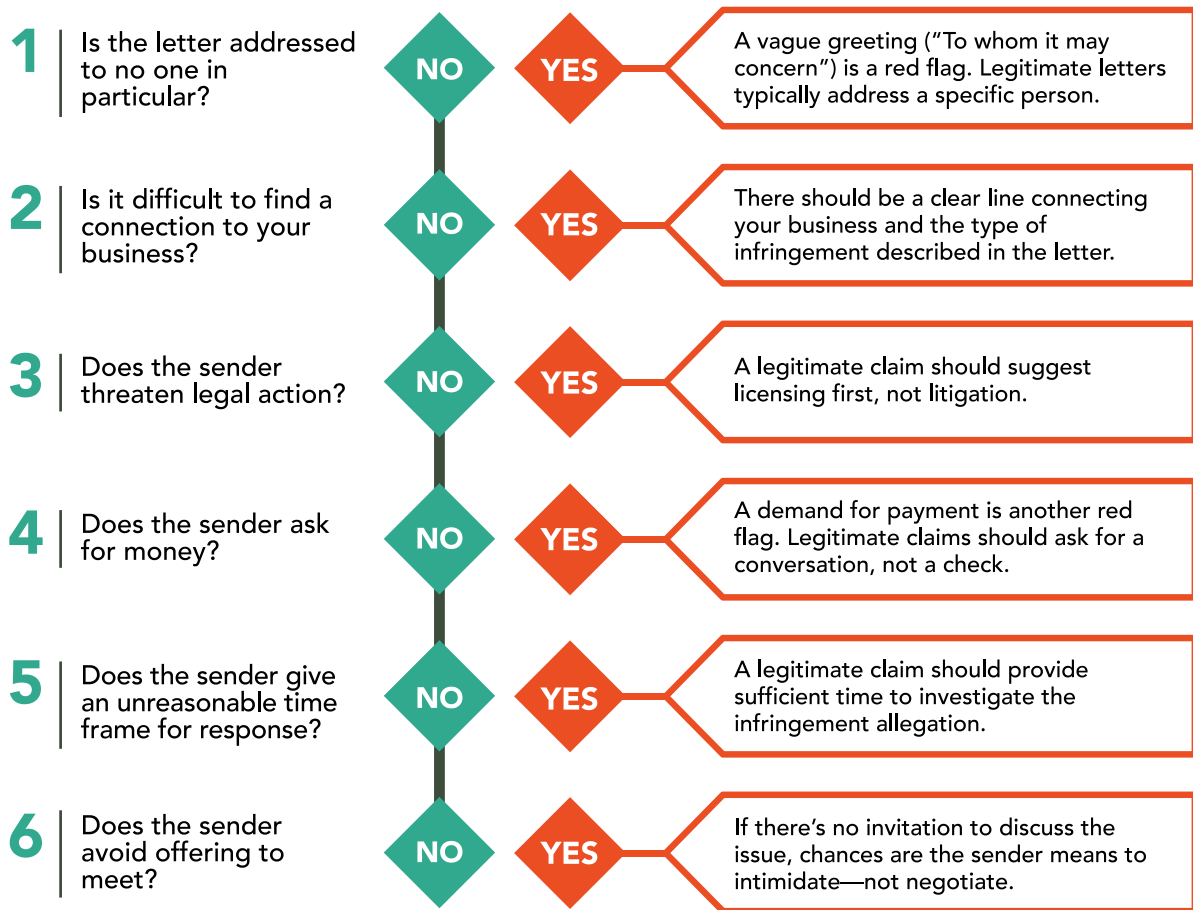
Patent trolls, typically operating through shell companies, send form letters to dozens, hundreds, or even thousands of apparently random small businesses at a time, claiming with little or no evidence that they are “infringing” the troll's patents. The senders demand so-called “licensing fees” ranging from USD1,000 to USD50,000 or more to avoid a patent infringement lawsuit that could cost these businesses far more to defend against in court – even if the business owner is innocent of any infringement.

Comprehensive data on the extent of the demand letter problem and its economic impact in the US is hard to come by or does not exist. But there is mounting anecdotal evidence that the deluge of demand letters is at the very least harming one of the nation's most critical job creation sectors, small businesses and startup companies. The reported impact usually takes the form of hiring delays, reduced R&D spending, or



## LEARN TO TAKE A STAND AGAINST BOGUS PATENT CLAIMS

The US patent system protects inventions and encourages innovation—but not all patent licensors play fair. If you received a letter about a patent infringement, **take this quiz** to find out if it’s a legitimate claim or a phony one.



### IF YOU ANSWERED MOSTLY NO

You’re probably looking at a legitimate claim, called a **“Notice Letter.”** Notice letters include lots of specific details, which show that the patent owner has done research and is prepared to negotiate.

### IF YOU ANSWERED MOSTLY YES

You’ve likely received a bogus claim, called a **“Demand Letter.”** These are often crafted by patent trolls who want to intimidate you (and thousands of businesses like yours) into paying rather than fighting, even if you’ve done nothing wrong.



a negative change in product or business strategy. One study reported that 70 percent of 200 venture capitalists surveyed had invested in startup companies that later received extortionist demand letters.

Simply looking at the aggregate economic impact of patent troll demand letters, however, misses their fundamental emotional impact – the intense popular rage that they generate. To understand that, put yourself in the place of a small business owner who is victimized by a patent troll.

### **SETTLING IS CHEAPER THAN FIGHTING**

Imagine receiving a certified letter from a shell company or obscure law office claiming that the WiFi routers you bought at an electronics store to install in your store or office are infringing one of the troll's patents. No actual evidence of infringement is provided. No patent claims are cited. Nevertheless, the sender threatens to sue you in United States federal court for patent infringement unless you pay a USD5,000 license fee.

You have no way of knowing if the letter is legitimate, if its claim that you are infringing a patent is true, or even if the patent itself is valid. Your business lawyer does not know, either, because only patent attorneys are sufficiently skilled in reading the specialized legal language of patent claims. You learn that the patent attorney's rates likely start at around USD500 per hour.

Nevertheless, you proceed and meet with a patent attorney. To your shock, he or she quickly reviews the demand letter and advises that the economically rational decision is to pay the toll claimed by the troll. Yes, you can ignore the letter or outright refuse to pay, but then you risk a ruinously expensive patent infringement lawsuit. You read about heroic business owners who have fought trolls, and won – but it cost them USD100,000 or more to do so.

Forget about trying to negotiate with the patent troll. Their demand letters often don't include a phone number, just a post office box to which you are told to send a check. Even if they include a phone number, they won't return your calls.

Bitterly, you bite the bullet and write a check for USD5,000 – funds earmarked for your business – plus hundreds more for the patent attorney. Inside, you seethe with anger at a patent system that apparently allows such outright extortion to be perpetrated.

Only if you can picture yourself being victimized by such a demand letter can you truly grasp why they – and the abusive practices of patent trolls in general – have

sparked such a wave of protest from the business community, the public, and elected officials.

### **US POLITICIANS ARE LISTENING – AND ACTING**

The National Federation of Independent Businesses (NFIB) and many other retail business groups and trade associations have demanded that government acts. And Washington, D.C. is listening. Today, anti-patent sentiment is rampant and Congress seems determined to enact anti-troll legislation, having been besieged over the last couple of years by thousands of very angry Main Street constituents demanding action.

In December 2013, the House of Representatives easily passed the Innovation Act. This act targeted the use of shell companies, required more details about infringement allegations, and included a 'loser pays' provision. However, the Senate's companion bill, the Patent Transparency and Improvements Act, stalled repeatedly and was withdrawn in mid-2014 owing to justifiable concerns that it would have severe unintended consequences on legitimate patent holders.

The enthusiasm for new laws curbing patent trolls has not waned. In June 2014, only two weeks after the Senate withdrew its bill, the House of Representatives launched another attempt. The House unveiled a draft demand letter bill that would clarify the power of the Federal Trade Commission (FTC) and state Attorneys General to regulate patent demand letters sent in bad faith.

A dozen US states, meanwhile, have already enacted laws to curb abusive patent demand letters, and 14 other states are actively considering legislation to do the same. In addition, the Attorneys General of several states have brought suit against trolls who send these letters using existing consumer protection laws against making false claims to extort money.

One of the most successful suits took place in New York, where in January 2014 state Attorney General Eric Schneiderman forced MPHJ Technologies, LLC to sign a consent decree requiring it to repay all the money it received from businesses in the state. MPHJ, using various shell companies, had falsely claimed in demand letters it sent to businesses that it had analyzed each target company's scanning systems and determined these to be in violation of its patents. In fact, MPHJ had merely sent form letters to hundreds of companies of a certain size and industry classification without investigating or uncovering any evidence whatsoever of infringement.

Examples like this demonstrate why so many ordinary citizens and small business owners are so furious – and with good reason. If they know US history, they will be

wondering, “Where is the patent system of Thomas Edison? What happened to a patent system that helped transform a largely agrarian United States in the 19<sup>th</sup> century into the global leader of the Industrial Revolution, and in the 20<sup>th</sup> and 21<sup>st</sup> centuries, into the world’s most prosperous and economically powerful nation?”

As an industry and as professionals, we should forthrightly condemn the practices of bad actors that are victimizing the innocent – just as responsible members of other industries condemn the predatory practices of bad actors in their fields. Then we must do our part to root them out. Only by doing so can we revitalize and reaffirm the demonstrable truth that the American patent system plays a vitally important role in the innovative process and the economic strength we all enjoy.

But instead, many in our industry sit silently on their hands, fearful of getting embroiled in controversy or of giving opponents of the patent system more ammunition with which to criticize and attack it. Some licensors even continue to write publicly about “the so-called” patent troll problem, as if thousands of small business victims were somehow merely imagining it all. Denial should not be tolerated in our industry.

#### **STAND UP TO THE DEMAND**

At Conversant, we recently launched a “Stand Up to the Demand” campaign, designed to help small businesses identify and respond to extortionist patent demand letters. We are not doing this for business gain, as small businesses are not our partners or licensees. Rather, we launched this campaign because we hope it will help restore public trust in our industry and in our patent system as a national engine of economic progress and competitiveness.

The first phase of the campaign features a web site with an info graphic quiz that helps business owners distinguish a bad demand letter from a legitimate notice letter, and lets them view sample demand and notice letters as well as a video to learn how to recognize bogus patent claim and what to do about it (see p. 7). We invite the public to share their stories of how they are dealing with patent trolls. And we also link to other resources, such as the website, operated by the US Patent and Trademark Office (USPTO), that offers advice to small businesses that believe they have been the victims of abusive demand letters.

Former USPTO director David Kappos described the US patent system as “our country’s investment plan – a giant 401k through which we pay a little extra now for more great innovations in the future.” As a vital guarantor of our nation’s future, the patent system certainly warrants that description. Let’s not forfeit that future by allowing patent trolls to corrupt it today.



The Dynamics  
of Innovation  
in Traditional Medicine  
in Ghana



By **Dr. George O. Essegbey**, Director,  
and **Mr. Stephen Awuni**, Research  
Scientist, Science and Technology  
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Over the past 30 years Ghana has made significant progress in enhancing the standing of traditional medicine as a viable healthcare option. By developing a favorable policy framework, the government has fostered innovation and improved traditional medical practice. The informal nature of the sector, however, poses particular challenges when it comes to securing the sector's long-term sustainability and when ensuring that policy and practice are fully aligned.

Ghana's experience in the area of traditional medicine offers interesting insights into the dynamics of innovation in a sector that, while pivotal in supporting equitable healthcare delivery goals, is largely made-up of micro-entrepreneurs operating in the informal economy (see box, p. 14). The country's achievements in strengthening traditional herbal medical practice have recently been the focus of a WIPO Development Agenda study ([www.wipo.int/meetings/en/doc\\_details.jsp?doc\\_id=267526](http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=267526)) which explores how innovation – the introduction and development of new and improved products and processes – takes place within the informal economy; the mechanisms by which traditional medical practitioners secure a competitive advantage; and, in particular, how informal operators protect their know-how.

#### **GHANA'S INNOVATION LANDSCAPE FOR TRADITIONAL MEDICINE**

The study identifies traditional herbal medical practitioners, policy makers, researchers, regulators, entrepreneurs and consumers as critical actors in Ghana's traditional medicine innovation landscape. Each, in some way, is driving innovative traditional medicine practice, making it possible to provide affordable access to quality goods and services on the one hand and creating sustainable livelihood opportunities, on the other hand. External influences, such as trade and economic agreements, and scientific and technological advances are also shaping the sector's innovation landscape.

National innovation policies typically focus on scientific and technological research and development. The future advancement and viability of Ghana's traditional medicine sector, however, hinges on creating an operating environment that takes advantage of the informal nature of traditional medicine practice while continuing to encourage innovation and strengthen entrepreneurship for improved quality and efficacy of traditional medicine products and practice.

For many, especially in developing countries, traditional medicine is their first choice. This is particularly true for those living in remote or marginalized areas where distance and cost are barriers to orthodox treatment. In Ghana, around 70 percent of the population sees traditional medicine as a desirable and necessary means of treating problems that Western medicine cannot adequately remedy.

Ghana's drive to transform traditional medicine into a potent vehicle for healthcare delivery has been on track since the 1990s. With just one medically trained doctor per 1,200 patients and one traditional medicine practitioner per 400 patients, traditional medicine has an important role to play in meeting equitable healthcare delivery goals

#### **A PRO-INNOVATION POLICY FRAMEWORK IS VITAL**

Ghana's experience underlines the importance of developing and implementing a pro-innovation policy framework underpinned by legislation and

regulations. In this respect, Ghana's Ministry of Health, which is responsible for overseeing the nation's healthcare delivery system, has been indispensable in fostering innovation in traditional medicine and in enhancing its acceptability as a healthcare option (see box, p. 14). Unlike modern medicine, traditional medicine practice generally lacks a strong scientific base, using knowledge acquired through many years of experience. The Ministry has been pivotal in addressing challenges of quality control, efficacy of products and in putting traditional medicine practice on a more rigorous scientific footing.

In 1994, the Traditional and Alternative Medicines Directorate was established under the Ministry of Health. This was an important first step in integrating traditional herbal practice into Ghana's health-care delivery system. Its mission is to make available, a well-defined, recognizable, complementary system of health based on "excellence in traditional and alternative medicine knowledge".

The Traditional Medicine Practice Act (Act 575) of 2000 further bolstered government policy, requiring practitioners to register with the Traditional Medical Practice Council; an important move in raising standards and formalizing traditional medical practice. The Act defines traditional medicine as "a practice based on beliefs and ideas recognized by the community to provide health care by using herbs and other naturally occurring substances." Importantly, it specifically recognizes that traditional medicine practice goes beyond the physical to encompass social and psychological dimensions of healthcare.

The Ministry's policy initiatives have led to the establishment of traditional medicine clinics in public hospitals and the inclusion of selected herbal medicines in its Essential Drug List.

### THE ROLE OF TRADITIONAL MEDICAL PRACTITIONERS

Traditional medicine practitioners have also been working to enhance their practice. Traditional medicine thrives on locally available resources, and knowledge of the health-care value of plants and their derivatives. Practitioners play a key role sharing knowledge and in adding value to and improving the quality and delivery of their products and practice, in particular through the formation of a strong network of associations.

### PRODUCT AND PROCESS INNOVATION

Innovation within the sector is evident from the improved efficacy and range of products available and in the use of new production processes.

Traditional medicine is used to treat a wide variety of ailments including diabetes, fever, hypertension and infertility. Product innovations encompass a wide range of herbal preparations – capsules, pills, creams, tinctures – sold



Photo: CSIR

Stephen Awuni, CSIR Research Scientist, with a traditional herbal practitioner during an interview. In Ghana, around 70 percent of the population sees traditional medicine as a desirable and necessary means of treating problems that Western medicine cannot adequately remedy.

in a variety of outlets ranging from the handbags of itinerant traditional herbalists, and traditional markets, such as Makola in Accra, to purpose-built corner kiosks and the growing number of modern pharmacies popping up in urban centers.

Traditional modes of production have given way to modern technologies to produce, package and market traditional medicines. Many practitioners, especially larger operations, now use grinding and mixing machines, blenders, apparatus for bottling and filling tubes and capsules and stainless steel boilers. The production environment, designed to ensure a stable supply of utilities and continuous output, is equipped with water storage containers, pumping machines and generators. Packaging involves the use of seals and good labelling information relating to dosages, expiry dates and batch numbers. More sophisticated producers also assure quality using pH meters and analyzers. Some traditional herbal clinics also use modern diagnostics.

With these innovations, the acceptability of traditional medicine products is not simply a question of faith or culture but the result of greater confidence in their quality and efficacy.

Despite the huge progress made, the sector's ability to develop further is hamstrung by the small-scale and fragmented nature of operations. Traditional medicine practice in Ghana covers a continuum: the bulk of micro-practitioners operate at different points of the informal economy, while a smaller number of larger businesses operate within the formal economy; in some instances entrepreneurs operate in both. To innovate and evolve, informal sector micro-enterprises need access to investment, an expanding market and new skills.

These findings highlight the need for policies that support learning and knowledge transfer within the sector, to drive traditional medicine innovation. An emphasis on training and research and development helps introduce practitioners to new production and processing techniques, quality assurance and good manufacturing practices, among other things. In this respect, traditional medicine associations, such as GHAFTRAM, have an important

## Policy initiatives to support the development of traditional medicine practice in Ghana

Initiatives include:

- The Traditional Medicine Practice Act, Act 575 of 2000
- The Strategic Plan for the Development of Traditional Medicine (2002 – 2004)
- Policy on Traditional Medicine Development (2003)
- Training Manual for Traditional Medicine Practitioners (2003 and 2005)
- Strategic Plan for the Development of Traditional Medicine (2005 – 2009)
- Code of Ethics and Standards of Practice (translated into three local languages – 2006)
- List of Recommended Herbal Medicines Essential for Primary Healthcare Services (2008)
- Policy and Administrative Guidelines for Complementary Alternative Medicine (2008)
- Guidelines for Intellectual Property Rights Protection Framework for Indigenous Knowledge Related to Health and Medicinal Plant Resources (2008)

## Defining the informal economy

For over 40 years the role played by the informal economy in economic development, poverty reduction and employment in low-income countries has caught the attention of academics and policymakers. Coined in the 1970s there is still no universally accepted definition of “informal economy” or its scope. Not to be confused with the underground or illegal economy, the informal economy typically comprises small household (or unincorporated) enterprises that provide goods and services in exchange for remuneration or barter but which are not regulated.



role to play in encouraging innovation and sharing best practices among their members.

Some progress has been made in using state procurement as a vehicle for expanding the market for local herbal drugs. The expansion of the list of traditional medicine treatments qualifying for reimbursement under the National Health Insurance Scheme (NHIS) would further boost the market for these products.

At present, the study shows, unsurprisingly, that those with the greatest capacity to scale-up operations are the bigger outfits. To support equitable healthcare delivery goals, however, the overriding challenge is to support the advancement of the sector as a whole. But up-scaling creates a dilemma. If practitioners scale-up their businesses and add additional value through innovation, the price of their products may rise making them less affordable to their customers. Such a scenario underlines the need for coherent policies that facilitate scalability without threatening affordability.

#### **HARNESSING THE VALUE OF INNOVATION**

While Ghana has an effective formal intellectual property (IP) system in place, few traditional medicine practitioners actually use it to protect their innovations or their business interests, and those that do typically operate in the formal economy. The bulk of practitioners rely on trade secrecy.

Embedded in cultural practice, secrecy comes at little or no financial cost to the individual (although it can cost the collectivity dearly insofar as knowledge that is not codified or passed on to others dies with the inventor).

Many practitioners, especially those operating in the informal economy, are not aware of the potential advantages of acquiring IP rights, such as trademarks, designs or patents. And for those aware of the IP system, the stringent requirements associated with obtaining IP protection are often beyond their reach. Much still remains to be done to raise awareness and understanding among practitioners about how to use IP rights to support their longer-term business interests. How to encourage innovation and strengthen entrepreneurship among traditional medicine

practitioners in the informal economy is a crucial policy challenge in Ghana.

Amid efforts to upgrade traditional medicine practice (and to safeguard against quackery) there are concerns among seasoned practitioners that traditional medicine is simply being merged with orthodox medical practice. They maintain the aim should be to reinforce traditional medicine as a distinct and parallel practice.

While the credibility of traditional medicine practice hinges on stronger regulation, the challenge for policy-makers is to develop innovative approaches that leverage the innovation potential of informal actors.

National innovation policies typically overlook innovation in the informal economy. Ghana, however, has gone some way in building bridges between modern systems of science and technology and traditional medicine. Examples include the prescription of traditional herbal preparations in public hospitals and the introduction of the first herbal medicine degree program at the Kwame Nkrumah University of Science and Technology (KNUST).

Healthcare in Ghana is generally near the top of Sub-Saharan African rankings, but bottlenecks in delivery remain, along with certain gaps in policy and practice. Overcoming these challenges will involve policy-makers thinking out-of-the-box to create a space for the numerous micro-entrepreneurs who are the backbone of Ghana's traditional medicine practice to thrive. This is an opportunity to support national equitable healthcare delivery goals as well as national economic development goals. The continued advancement of traditional medicine practice promises significant opportunities for job creation across the traditional medicine value chain. Moreover, beyond their use at home, there are also significant opportunities to commercialize traditional medicine products in global markets. Perhaps it is time to put traditional medicine on a more industrial footing.

# Removing Barriers to Literacy: How the Marrakesh VIP Treaty Can Change Lives

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



Photo: Amit Bhargava/the-guardian.com

Despite the huge challenges associated with overcoming the global book famine, leading human rights advocates are optimistic that the early entry into force of the Marrakesh VIP Treaty, and initiatives such as the Accessible Books Consortium will support the goal of global equality of access to learning materials by people, especially children, living with visual impairment.

“Knowledge is power” wrote the sixteenth century philosopher Francis Bacon. Access to knowledge opens the door to education, employment, and a fruitful and independent personal life. While many of us enjoy unprecedented opportunities to access knowledge and information, millions of blind or partially sighted people around the world have little or no access to the books, newspapers or websites where that knowledge is found. Of particular concern are the estimated 6 million children around the globe with a visual impairment. Eighty percent of these children live in developing countries and over 90 per cent of those living in these under-resourced settings – some 4.4 million children – do not receive an education.

In December 2014, WIPO brought together leading human rights advocates, H.E. Ambassador Aubrey Webson from Antigua and Barbuda, Lord Colin Low of Dalston from the UK and Legislator Monthian Buntan from Thailand to explain how the rapid entry into force of the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled (The Marrakesh VIP Treaty), concluded in June 2013, will affect the lives of these children and generally improve equality of access to knowledge and information. The Treaty, which addresses legal barriers to the international exchange of works in accessible formats, will enter into force when 20 countries ratify it. At the time of writing, just six countries have done so: El Salvador, India, Mali, Paraguay, the United Arab Emirates and Uruguay.

## TACKLING THE GLOBAL BOOK FAMINE

People who live with blindness or visual impairment (VIPs) face a chronic shortage of reading material. According to the World Blind Union less than 10 percent of published works are available in accessible formats. This is often referred to as the “global book famine”. In itself, it is “a condition that is man-made... and has seen many people, including myself, go hungry for material because of the lack of books and the lack of material,” said Ambassador

## About the Accessible Books Consortium (ABC)

Launched in June 2014, as a complementary practical initiative to support the goals of the Marrakesh VIP Treaty, the ABC seeks to increase the number of books worldwide in accessible formats – such as braille, audio and large print – and to make them available to people who are print disabled. It does this through three main activities, namely:

- training in the production and distribution of accessible books (capacity building);
- the promotion of “born accessible” publishing (inclusive publishing), and
- an international book exchange known as the TIGAR Service.

The ABC is an alliance consisting of WIPO, the World Blind Union, the DAISY Consortium, the International Federation of Library Associations and Institutions, the International Authors’ Forum, the International Federation of Reproduction Rights Organizations and the International Publishers Association.

Webson. “The implication of low literacy among blind people is similar to that of any other group, sighted or otherwise. If your level of education is poor your employment opportunities are poor, and being blind you have a double handicap because you already start at a disadvantage.”

### RATIFYING THE MARRAKESH TREATY: A TOP PRIORITY

“Ratification of the Marrakesh VIP Treaty by governments is and must be the number one priority,” Ambassador Webson said. “Most developing countries do not have a library service that is focused on providing any form of book to persons who are blind,” he explained. “It is important that we get governments to ratify the treaty because of the opportunities it gives to all citizens. It is not just the right thing to do; it is an economic opportunity as well. If you provide the opportunity for learning, persons who are blind can take their place in the social and economic life of society and make an economic contribution.”

“The Marrakesh Treaty has given us an opening. It is an opportunity to be creative about getting material into the hands of people who are blind,” he said underlining the need for governments, non-governmental actors and the private sector to work together to develop strategies for improved access to learning materials. “We can no longer simply look at model projects. The backlog is too great. The strategy must bear in mind not just needs of the few but how we can respond to the needs of the many.”

### CHILDREN WITH VISUAL IMPAIRMENT ARE OFTEN LEFT BEHIND

Legislator Monthian Buntan, a member of the Thai National Legislative Assembly, noted that in a country with near 100 percent literacy rates among sighted students, “less than 10 percent of people who are blind or print disabled in Thailand have received any form of education.” In addition, less than one percent of text books are available in formats that blind or partially sighted students can read.

### STRONG LEGAL FRAMEWORK BUT MANY PRACTICAL CHALLENGES

While significant practical challenges remain in terms of achieving equality in education and employment for blind or visually impaired persons, Thailand has in place, a robust legal framework. “We have one of the best disability laws in the ASEAN region and probably one of the best in Asia,” Mr. Buntan said. “However, when it comes to implementation and enforcement of the law or securing a fair budget allocation in order to achieve equality in, for example, education, to have enough books to read, we are still far from achieving the goal of equality.”

Legislator Buntan noted that in November 2014, the National Legislative Assembly of Thailand had amended the country's Copyright Act. "This will pave the way for us to ratify the Marrakesh Treaty very soon," he said, underlining the importance of the Treaty's early implementation. "We need to increase the number of countries which ratify and effectively implement the Marrakesh VIP Treaty to make books available in accessible formats for all people."

### **BARRIERS TO LITERACY**

One of the key barriers to literacy in Thailand, Mr. Buntan believes is a low level of understanding about accessibility. "Access to information and knowledge remains very abstract for some people," he said. "We need to find ways to win public support conceptually otherwise it will take 100 years" to achieve equality. The Marrakesh Treaty, he noted, is "a good living example of how to increase experience-based understanding of the importance of having accessible reading material." Speedy ratification of the Treaty would also support the Accessible Books Consortium in its mission to address practical barriers to access and expand access to local content.

Legislator Buntan summed up the stark reality facing blind and partially sighted people in developing countries, "no accessible book; no quality education." The implications of this in terms of their ability to live fruitful, independent lives are far-reaching. "When you are able to participate effectively and fully in the education process then you can talk about meaningful employment and full and effective participation in society. But without access to knowledge and information through accessible books or reading material you fail the first step which is education. And once you fail in the area of education, employment is impossible," he explained.

### **USING TECHNOLOGY TO FACILITATE ACCESS**

A key player in terms of improving access by visually impaired persons to reading material, the Thailand Association of the Blind (TAB) spearheaded the development of a user-friendly system that offers around-the-clock access to talking books, daily newspapers, weekly magazines and the like. Its TAB 1414 service is an extremely popular system for delivering content to home or mobile telephones. To date over 10 million calls had been received from users who access the service by dialing the number 1414 onto the keypads of their home or mobile phones. "TAB 1414 is ready for sharing with the international community, especially developing countries," noted Mr. Buntan.



A second generation, web-based multimedia streaming service, known as TAB2read.com is also under development. TAB2read.com is available via the Internet on computers, smartphones and tablets, and allows "people to read through their eyes, ears and fingers one at a time or all at once," the legislator explained.

### **LEARNERS NEED MATERIALS IN ACCESSIBLE FORMATS**

In the UK, Lord Low, President of the International Council for Education of People with Visual Impairment (ICEVI), recounted how the dire shortage of text books in accessible formats for blind or partially sighted students in mainstream UK schools prompted government action. Successful lobbying backed-up by strong evidence, government leadership, and adequate funding, had made it possible to develop and launch the *Load2Learn* service,



“a self-sustaining model that gives schools access to learning materials in electronic format.” Established by the Royal National Institute of Blind People (RNIB) and Dyslexia Action, the service now hosts “over 7,000 accessible versions of text books, exam papers, educational images and other key curriculum materials,” Lord Low explained. “Learners need their reading materials in a form that is accessible to them and flexible electronic versions can be very effective.”

#### **“KIT, CONTENT AND CONFIDENCE”**

For ICEVI, technology offers great promise in achieving equality of access within mainstream schools. “One of our top priorities at the moment is to use technology to facilitate the inclusion of visually impaired children in mainstream schools,” Lord Low explained.

While content is a key part of the solution, it is, however, “only part of the jigsaw,” Lord Low explained. “There are three factors that really need to be encompassed in any initiative to make curriculum materials more available –

Access to knowledge opens the door to a good education, successful employment, and a fruitful and independent personal life. Of the estimated 6 million children around the globe with a visual impairment, some 4.4 million of them live in under-resourced settings and do not receive an education.

kit, content and confidence. We have been speaking mainly about content up to now, but it is very important for accessing this material that young people in education and their teachers have access to the devices, (computers, laptops or mobile phones, etc.) and the confidence to use them efficiently.”

### ICEVI'S INTERNATIONAL PROGRAMS

Beyond the UK, under its Education for All Visually Impaired Children Initiative (EFAVI), ICEVI is galvanizing international efforts to improve access to education. Together with its development partners it has “been instrumental in getting over 100,000 children into school in more than a dozen countries and over the last five years we have conducted more than 250 capacity building programs with nearly 40,000 parents and teachers.” While it recognizes that this is just “scratching the surface,” ICEVI is developing strategic partnerships with international partners to enhance its ability to broaden access to learning materials in developing countries and to ensure that visually impaired children get an education.

### THE CONTRIBUTION OF THE ACCESSIBLE BOOKS CONSORTIUM

Commenting on the contribution of the Accessible Books Consortium (ABC), which addresses practical barriers to access, (see [www.wipo.int/wipo\\_magazine/en/2014/04/article\\_0005.html](http://www.wipo.int/wipo_magazine/en/2014/04/article_0005.html)) in tackling the global book famine, Lord Low believed it could play five key roles. “First, creating a network of experienced people who have solved issues in low resource areas; second, demonstrating how publishers can create materials that are born accessible; third, sharing content across services and national boundaries; fourth, developing training materials that enable scaling-up of production and usage of accessible reading options; and fifth, exposing where gaps still exist such as low-cost devices, internet connectivity or availability of text-to-speech translation software in many languages.”

### OPTIMISTIC ABOUT THE FUTURE

In spite of the huge challenges ahead, the panelists were upbeat about the future. “There are some very exciting things happening with technology that are going to make blind people more and more equal” noted Ambassador Webson. “As we look ahead and we create the channels for inclusive education and inclusive services and create a much more inclusive society, you can’t help but be optimistic,” he said. “It can only get better if we come together and manage to move along the things that we are doing, like the Marrakesh Treaty, the ABC, and if we can make technology more responsive to the needs of people with print disabilities, we have a great life to live.”

## Some examples of accessible formats:

**E-Books** – The emergence of e-books is a positive development enabling blind and partially sighted people to read using large print, electronic braille, or to listen via text to speech or audio applications. While a growing number of e-books exist, many more titles are not yet available in this format.

**Giant print books** – many national libraries offer books in very large print. In such a format, *Harry Potter and the Goblet of Fire* would be five volumes.

**Braille books** – Braille, a code based on six dots arranged in two columns of three dots, enables blind people to read with their fingers and to write. A number of Braille technologies (displays, printers, electronic note takers) enable those who know the code to access material online.

**Talking books** – texts read by professional actors are a pleasant alternative to synthetic computer speech.

# Linking the Past and the Future: Capturing Knowledge in Malaysia

By **Ramesh Pillai**, Executive Secretary, Malaysian Association of Creativity & Innovation (MACRI), Kuala Lumpur, Malaysia

Dato Dr Marzalina, leader of Project Linkages, explains to a team of youth the use of Asam Gelugor leaves at the Forest Research Institute Malaysia (FRIM) Ethno Botanic Garden.



Photo: MACRI

An inspiring social innovation initiative is engaging young people in Malaysia and encouraging them to rediscover and capture the knowledge, insights and wisdom of the country's elder citizens. Launched in December 2012, by the Malaysian Association of Creativity & Innovation (MACRI), *Linkages: Connecting Past to Future* is a flagship project that focuses on inter-generational knowledge-sharing to both rediscover and tap into the knowledge of the country's wealth of grassroots innovators and creators. MACRI has been working to promote a culture of creativity and innovation in Malaysia, one of the world's most biodiversity-rich and culturally-diverse nations, since 2007. Project Linkages, takes its work to another level reinforcing a culture of creativity among young people; generating renewed respect for the customs and practices of elder citizens and creating opportunities to identify intellectual property (IP) assets with commercial potential.

The project was inspired by the work of Professor Anil K. Gupta, Executive Vice Chairperson of India's National Innovation Foundation. Professor Gupta is a champion of



Photo: MACRI



One of the most memorable storytelling sessions took place at the Forest Research Institute Malaysia (FRIM) nature reserve. Hundreds of inquisitive and enthusiastic youngsters armed with cameras met with elders and recorded over 50 clips within 24 hours.

the cause of creative communities and individual grassroots inventors. His work, which highlights the wealth of traditional knowledge (TK) embedded in communities, convinced me and my colleagues at MACRI of the need to find a way to record the know-how and wisdom so readily found in communities across Malaysia and, and to identify any IP rights and income-generating opportunities.

The urgency of the task, was brought home to me during a conversation with Dr. Gupta when he reflected that, “every time an old person dies a library of information is buried. Never before have we lost more traditional knowledge.”

“The idea of getting elders to have their stories and experiences documented by their grandchildren is a worthy goal,” he said on learning about Project Linkages, noting that it would “serve as an excellent platform for learning creativity the experiential way while creating the opportunity for development of new and innovative solutions.”

Many others felt the same way and were drawn to the project’s potential to harvest the TK, practices and know-how of elders as a means of securing an economic return for the communities concerned. A meeting co-organized by MACRI and the Malaysian Innovation Foundation, on the sidelines of the Kuala Lumpur Innovation Forum in November 2011, attracted some 1,000 participants, including experts in community and social development; medicinal plant research; intellectual property; and event management; as well as youth workers.

Interest in the project was given further impetus insofar as its objectives coincided with other national initiatives, such as the drive by the Multimedia Corporation of Malaysia (MDec) to promote the digital skills of young Malaysians. “The aim of Project Linkages to instill a culture of innovation and creative thinking and unravel and value new sources of age-old knowledge is very timely,” notes Sumitra Nair, Director of Digital Malaysia Youth Cluster

& Initiative, MDec. “Many youngsters nowadays are into new technology and they are very creative in expressing their ideas. Project Linkages encourages inter-generational respect and trust towards knowledge gathering and sharing. This exercise will also help in establishing a local knowledge digital database that could eventually facilitate socio-economic and commercial explorations.”

#### ENGAGING YOUNG PEOPLE

MACRI’s experience in working with schools and colleges meant we were well placed to engage young people in the project. To attract their interest, we launched the *Green Wisdom of Elders* multi-media contest, challenging them to uncover and document the know-how, creativity and values of earlier generations.

We also encouraged them to record interesting tips or elements of TK passed on by their elders on postcards entitled “My Precious Linkages” (see box) and to send them to Project Linkages.

MACRI also began working with the charismatic youth leader, Michael Teoh, whose participation drew many young people to the project. On top of his role in animating a series of workshops, Michael helped to appoint Linkages Youth Ambassadors who play a key role in promoting and running the project’s social media campaign. In previous years, some of the Youth Ambassadors even created promotional videos with original ethnic-techno fusion music.

The 2013 contest attracted around 500 entries and in 2014, we received 525 entries, demonstrating the project’s continuing popularity.

“I think the Linkages project is a great idea. I feel that young people today should be proud of the wisdom of their grandparents and should recognize their stories and heritage,” Michael Teoh explains. “I have seen Project



Linkages come full circle with hundreds of inspiring stories and anecdotes from our older generation being shared by youngsters. I am very proud to be associated with this very noble initiative. As youngsters we have the responsibility to carry forward our traditions and heritage for our own betterment and a better future.”

**ENGAGING ELDERLY**

To complete the loop, we needed to engage senior citizens to share their stories and knowledge. To this end, we partnered with the Department of National Unity’s senior citizens program and organized a series of storytelling jamming sessions during which elders were invited to share their stories with young people. One of the most memorable of these storytelling sessions took place at the Forest Research Institute Malaysia (FRIM) nature reserve. Hundreds of inquisitive and enthusiastic youngsters armed with cameras converged on the reserve, which provided an excellent backdrop for shooting videos and photos. Their challenge was to meet with the elders and to record (either on video or as photo essays) as many inspiring stories as possible in one day. Over 50 submissions were received within 24 hours.

**CAPTURING COMMUNITY KNOW-HOW**

Many of our senior citizens have vast stores of knowledge, and our youngsters have a huge amount of creative energy. By connecting them we are helping to rekindle interest in and renewed respect for our TK and cultural heritage.

Through the project, we are also promoting a culture of innovation and creative thinking among young people and exploring the potential to transform this knowledge into IP assets. “There is so much science and innovation that resides in the wisdom and traditional knowledge of our elder citizens,” notes Dato Dr. Marzalina Mansor, who is currently leading Project Linkages. “My grandmother, who is now close to 100 still tends to her little herbal

**My precious linkages: Postcards from the past**

Under the project, MACRI widely distributed *My Precious Linkages* postcards to encourage young people to record insights and tips. Some interesting nuggets of information were

*Use of banana leaves as a wrapper to keep food fresh.*



*Use of onions to treat cracked heels.*



*Use of hibiscus leaves as a treatment for fever and as a hair conditioner.*



garden in her backyard. She is a walking encyclopedia of medicinal plants and functional foods.”

### HOW THE CONTEST WORKS

Entries comprising video clips of around three minutes are typically submitted online via a dedicated web portal. Contestants wishing to safeguard a submission which may qualify for IP protection may submit their work through a private portal. Any content created – whether a photo essay or a video – under the project remains the property of the creator. Similarly, any rights or interests flowing from the underlying TK or traditional cultural expressions (TCEs) captured remain with storytellers or their community. Winners are selected on the basis of the originality and creativity of their submission and the values imparted. Entries are evaluated by a jury of experts.

### NEW SPONSORS DRAWN TO PROJECT LINKAGES

Thanks to Project Linkages, MACRI has been able to attract new stakeholders and sponsors. Among them, the National Innovation Foundation (YIM), a champion of grassroots innovation; the Ministry of Science Technology and Innovation (MOSTI) responsible for promoting awareness in science and innovation; the Department of National Unity & Integration (JPNIN) which seeks to instill greater respect towards elders; and the Malaysian Communications and Multimedia Commission (MCMC) and the Multimedia Development Corporation (MDeC) which are working to encourage young Malaysians to produce more creative content. Project Linkages has become MACRI's flagship project enabling us to generate much needed funds and to continue our work in promoting a culture of creativity and innovation in Malaysia.

### MALAYSIA'S COMMITMENT TO PROTECTING TRADITIONAL KNOWLEDGE

Project Linkages has captured the Malaysian public's imagination. Its success has been further buoyed by the Malaysian Government's broader commitment to protecting Malaysia's TK, genetic resources (GRs) and TCEs. On top of efforts to support the negotiation of an international agreement at WIPO to protect these assets,



Photo: MACRI

MACRI's flagship Project Linkages focuses on inter-generational knowledge-sharing to both rediscover and tap into the knowledge of the country's wealth of grassroots innovators and creators.

### Inspiring submissions and cases of traditional wisdom

#### Pandan leaves as a natural cockroach repellent

by Liew Liang Huey & Tee Tze Phei,  
Grand Prize Winner for Linkages 2013

In their video clip, the winners cleverly connect the use of TK to an innovative and environmentally-friendly solution with commercial potential. The clip shows how pandan leaves (*Pandanus amaryllifolius*) are used to repel cockroaches. The leaf, which emits an aromatic scent, is tied into a knot and placed in locations frequented by cockroaches. It acts as both a repellent and a natural air freshener.

#### Bery Meris: Bidayuh Kampung Lifestyle by John Dan Adrian

Linkages 2014 Grand Prize Winner

In the video entitled “Bery Meris: Bidayuh Kampung Lifestyle”, the 16-year-old winner captures many tips and remedies for healthy living. In particular, Bery Meris, a 68 year-old grandmother from the Bidayuh ethnic group, shares a recipe for regulating hypertension by boiling papaya leaves with onions and a pinch of salt.



Photo: MACRI

By connecting young people with their elders, Project Linkages is rekindling interest in and renewing respect for the cultural heritage and traditional knowledge of Malaysia.

the government recently developed the Malaysian Traditional Knowledge Digital Library (MyTKDL) to assist patent examiners in processing patent applications. The aim is to prevent the misappropriation of Malaysia's TK by unauthorized parties.

Similarly, data are being collected on the country's TCEs. So far, information on over 200 dances, songs, handicrafts, tales and ceremonies has been collected. With a view to supporting these initiatives, the focus of the 2015 Project Linkages challenge will be on capturing stories relating to TK and TCEs. Submissions will be vetted for any commercial potential by MACRI in collaboration with MOSTI and FRIM.

Noting the "lack of understanding on the relevance of TK and TCEs, especially from the standpoint of their IP potential," Ms. Shamsiah Kamaruddin, Director General of MyIPO said that the Linkages project "is a very timely initiative to create greater awareness on the importance of preserving our culture and heritage for future generations. This initiative complements MyIPO's MyTKDL database and the plans to develop a TCE database as a national source of information."

### LAUNCH OF PROJECT LINKAGES

Project Linkages' journey began with a simple launch ceremony. The highlight of the event was a storytelling session by Hasniah Hussein, a 62 year-old grandmother, affectionately known as Mama Tok, who captivated the

audience with her stories of yesteryear. She explained that as a child growing up in her village, there was no television, electricity or tap water. "Even hair shampoo did not exist at that time," she said recounting how her resourceful late grandmother who "had solutions for everything... used rambutan leaves to wash her hair. Interestingly my grandmother's hair remained silky and black until her demise at the ripe old age of 90 years," Mama Tok mused.

Mama Tok reminded the audience, both old and young, of the importance of preserving their culture and their heritage. Her stories and encouragement helped to pave the way for other similar outreach programs in which ordinary elder citizens were invited as guests of honor to share their views, experiences and know-how.

"Project Linkages will help advocate the culture of curiosity and sharing of knowledge. Ultimately we hope to rediscover new source of intellectual assets that may have the potential to be further developed and monetized," explains, Dato' Shaik Sulaiman, MACRI's President.

### LESSONS LEARNED AND MOVING FORWARD

The project has enabled us to record hundreds of insights from elders. Examples include *Muthi's Neem Leaf Remedy* ([www.youtube.com/watch?v=wTqAWT6CBrs](http://www.youtube.com/watch?v=wTqAWT6CBrs)) recorded by 12 year-old Jeevan Pillai. The clip documents how Granny Leelavathy uses neem leaves to create a brew which she maintains regulates diabetes and treats skin diseases such as psoriasis.

Thanks to the support of the Malaysian Government, the prospects for MACRI to enhance the impact of its innovative flagship program are very promising. "Malaysia has a very diverse and rich source of TK and TCEs that is waiting to be rediscovered and translated into intellectual property assets," notes Mr Kamel Mohamad, Under Secretary, MOSTI, and former Director General of MyIPO. MOSTI "sees great potential in Project Linkages and will continue to support MACRI in this endeavor. In collaboration with MyIPO and its counterpart, WIPO, it is hoped that greater strides will be accomplished in the coming months."

# Branding Cornish Tea

By **Dan Anthony**, Freelance Writer



Photo: Tregothnan.co.uk

Jonathon Jones, Managing Director of Trading at Tregothnan with food writer and TV presenter Mary Berry at Tregothnan. The first tea bushes were planted on the Estate in 1998. Now the estate plants around 6,000 bushes a year, produces 10 tonnes of tea valued at more than GBP 2million and employs over 70 people.

Tregothnan, the family seat of the Viscount of Falmouth, in the South West of England overlooks the deep sea creek of the river Fal, hidden deep in the Cornish woods between Truro and Falmouth. It's a landscape that is steeped in time. The current Viscount can trace his connection to this land back to the mid-fourteenth century. Here, it seemed, things never change.

But the Tregothnan estate has a unique feature: its gardens. In the eighteenth and nineteenth centuries, plants were brought back to Britain from all over its expanding empire and the techniques for cultivating them were developed in the walled gardens and greenhouses of the nation's country houses. Tregothnan's gardens, warmer than most, situated on the south-facing side of sunny Cornwall, grew to become famous – and a hotbed of horticultural innovation.

## NECESSITY AND INVENTION

In the 1990s, faced with the problem of maintaining Tregothnan's unique arboretum and gardens, the then Head Gardener and now Managing Director of Trading at Tregothnan, Jonathon Jones, came up with an idea that has not only changed the fortunes of Evelyn Arthur Boscawen, heir to the estate, but may also alter our perception of Britain's most iconic drink: tea.

"We knew we needed to do something different to help maintain and develop the 100 acre botanical gardens at Tregothnan," said Jonathon. "The usual route would be to open the gardens up and encourage visitors – but that would have changed their unique character. Instead we hit upon a home-grown solution."

Tea bushes (*Camellia sinensis*), were already grown on a small scale at the estate – Jonathon's idea went a little further. Could the warm, wet, frost-free, micro-climate of the Fal Valley sustain the UK's only commercial tea plantation? Good gardeners like experiments – there was only one way to find out and the risk paid off.

"The first tea bushes were planted in 1998," Jonathon said. "By 2005, the year in which Tregothnan's first European Community Trade Mark was registered, the bushes had



Photo: Tregothnan.co.uk

Tregothnan's first European Community Trade Mark was registered in 2005. Jonathon Jones, Managing Director of Trading at Tregothnan in Cornwall believes the future of tea drinking depends on rebranding and re-engaging with the whole idea of drinking tea and capturing the public's imagination.

matured and we were picking, marketing and selling home-grown Tregothnan tea. Now we plant around 6,000 bushes a year."

### BRANDING

"The development of the Tregothnan brand was a response to an urgent need to sustain our unique gardens," Jonathon explained. "Last year we produced ten tonnes of tea with a value in excess of GBP2million. The estate employs over 70 people and we're now expanding our horizons."

British exports into the burgeoning Chinese economy are usually associated with technology, raw materials, IT and financial services. Jonathon Jones and his team at Tregothnan have added tea to the list. Cornish tea is in demand in India too. In August 2014, the Indian High Commissioner attended a ceremony at Tregothnan at which he planted a tea bush. Tregothnan supplies supermarkets and caterers throughout the UK with English tea, its unique selling point being that it was actually grown here – down in the secret garden. The appeal of the high-quality tea is backed by a brand and a story tea drinkers can't resist. And Tregothnan's revival isn't just about tea: flowers, honey and other products from the estate are all being produced with a view to UK and global markets.

### BEVERAGE BONANZA

Jonathon estimates that growth in tea sales from Tregothnan can be expanded up to tenfold. But the success of Tregothnan tea has revealed a new, even bigger challenge. Faced with the "coffification" of the high street, he believes the future of tea drinking depends on rebranding and re-engaging with the whole idea of drinking tea and capturing the public's imagination. That is why he is pitching British tea, Tregothnan style, as new, fresh and with almost limitless potential.

### SALES OF TEA

A staggering 165 million cups of tea are drunk every day in the UK. For the tea growers of Tregothnan the challenge is clear: tea as a product must develop with the times. Young consumers increasingly believe that "tea is cool". Jonathon is determined to reinforce this trend. His pioneering spirit backed up with a wealth of gardening experience, and a vision of what tea-drinking can become are proving key drivers of the success of Tregothnan's new brew.

"I don't think we've felt more confident than at present. The potential for export has never been stronger," Jonathon said. "Cornish tea is the great undiscovered drink. We are proud to be the only producer actually growing tea in the UK. Finally, one of Britain's great institutions has found a home on British soil."

# From the Bottom Up: *LEAN* Translates into Better Customer Service

By **Sylvain Laporte**, Chief Executive Officer,  
Canadian Intellectual Property Office



Sylvain Laporte, CEO of the Canadian Intellectual Property Office.

The customer is always right. *Le client n'a jamais tort. Der Kunde ist König.*

In any language, in any country, this motto has long been the cornerstone of the service industry – where client satisfaction alone can mean the success or failure of a business.

In recent years, governments around the world have seen the wisdom of this private sector thinking and are taking a more customer-centric approach to service delivery.

Here at the Canadian Intellectual Property Office (CIPO), we are no different. We know our customers want value for money in using our services. To make this happen, we needed to carefully review our office practices, find ways to improve them and eliminate activities that do not provide value. This is not an easy task.

That is why we decided to apply the *LEAN* methodology, and we're excited by the early results.

In just 24 months, we have developed our internal competencies, run multiple prototypes and instilled a customer-centric culture that will continue to enable the transformation process. With *LEAN* firmly established in the organization, we:

- reduced a part of the trademarks registration process from 7 to 2 days;
- cut our lead time for patent applications (how we sort, validate and scan incoming applications) from 400 to 24 hours;
- increased our quality control by checking 100 percent of items, up from 50 percent;
- dropped our patent exam report lead time (how long it takes to reach a client) from 13 to 3 days; and
- applied a continuous flow process for our patent exams, thereby leveling the production load.

## **SO, WHAT IS *LEAN*?**

Put simply, *LEAN* is a grassroots way for an organization to continuously improve the timeliness, quality and cost-efficiency of business operations. Always with the customer in mind, *LEAN* relies on its frontline staff to be the catalysts for change. Employees are directly involved in sharing ideas on how to increase customer value, from one end of a process to the other.

This notion is at the core of *LEAN*, a management approach originally developed in the manufacturing industry and now being applied across a wide variety of industries and government.

### WHY GO LEAN?

When we first considered the concept of *LEAN*, there was the usual mix of fear and doubt associated with any organizational change. Is it sustainable? How much time and effort will it take?

Applying *LEAN* takes discipline, flexibility, tenacity, and most of all, the drive to be better. With this in mind, we knew *LEAN* was the key to:

- empowering CIPO employees to find efficiencies in their work;
- reducing lead time with our customers by eliminating redundant work processes;
- enabling us to respond more promptly to customers while improving quality and cost-effectiveness; and
- creating a culture of ongoing improvement that has all employees constantly thinking of better ways to do their work.

It is so easy to lose sight of the customer, but the *LEAN* method reminds us to put the vision of customer service back into focus.

### SETTING THE FOUNDATION

Recognizing the need to improve operating efficiency, a few years ago, CIPO implemented a *LEAN* education program to engage and develop employees as *LEAN* agents. While this requires investment in employees, it certainly pays off as it encourages employees themselves to invest in improving the organization. Those taking part in the program can obtain industry-recognized certification at several progressive levels. Building our own internal expertise means that future change will be driven by our workforce.

Although at first, some employees were unsure about *LEAN*, the benefits of “having a voice” were quickly recognized. Participation continues to grow across CIPO.

### BUILDING ON SUCCESS

Since the *LEAN* mindset is about trusting employees (rather than management) to drive change, employee morale has improved. We are receiving positive feedback across the organization, and seeing a positive shift in perception as employees understand and engage with the processes they work on every day.

Our first group of *LEAN* agents and their teams have achieved incredible productivity gains, reduced turn-around times and improved quality. We now have 28 *LEAN* agents working with our frontline employees in all sectors.

### NEXT STEPS

Our ultimate goal is to “*LEAN*” the entire organization. Buoyed by positive results and rapid progress, *LEAN* is becoming engrained in CIPO’s culture. We have seen how the “bottom-up” approach enables employees to influence their work and how they do it. This, in turn, will drive them to aim higher and deliver even better customer service.

Improving the business of an organization is never easy; we have certainly experienced our share of growing pains. But thanks to our drive and commitment – a conviction that everything can be improved – and the notion that nothing is exempt from improvement, we are seeing concrete efficiency gains as well as improvements in the overall quality of our customer service and employee morale.

So, yes, the customer is always right. But sometimes we public servants get it right, too.

For more information on the *LEAN* process, visit [www.lean.org/](http://www.lean.org/).



At first, some CIPO employees were unsure about the *LEAN* approach, which trusts employees (rather than management) to drive change, but the benefits of “having a voice” were quickly recognized. Morale has improved, participation continues to grow, and customer service performance continues to improve.



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