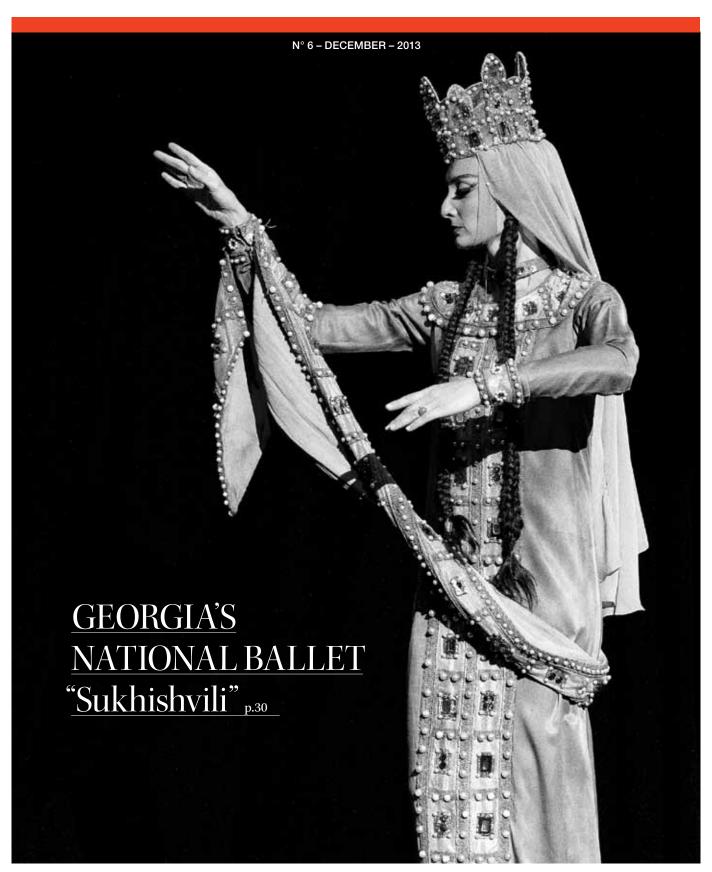
# WIPO MAGAZINE



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# WIPO's new website



The new web structure and design of **wipo.int** puts users front and center. Whether you are a newcomer to intellectual property (IP) or a seasoned IP professional, the new site is designed to respond to your needs.

The new **wipo.int** portal provides a quick overview of WIPO and enables you to find out about WIPO's diverse activities via new fly-out menus. Better sign-posting makes it easier for you to navigate the site and to access the information you need quickly.

The new design is clean and flexible and responds to the new ways you access information. It features seamless inte-

gration of video and visuals, and adjusts automatically to provide optimal display and navigation on desktops, tablets and smartphones regardless of size of system.

wipo.int is a work in progress. We will continue to upgrade and update content in the coming months and new features will be added in response to your feedback.

Please let us know what you think by sending your comments and suggestions to <a href="https://www.wipo.int/contact/en/area.jsp?area=web">www.wipo.int/contact/en/area.jsp?area=web</a>. Your views will help ensure the site evolves in response to your needs.

# www.Wipo.int

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Front cover: Photo: WIPO/Berrod On the opening day of WIPO's Assemblies (September 23 to October 2, 2013), Georgia's National Ballet "Sukhishvili" offered delegates a stunning performance of the diversity of Georgia's folk tradition.

# Acknowledgements:

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# WIPO FORUM HOSTS PIONEERING **INNOVATORS**

By Catherine Jewell, Communications Division, WIPO

For companies operating in a competitive market, innovation is a way of life. We all benefit from the stream of new and improved products and services that result. Every once in a while, however, trail-blazing pioneers emerge with a new game plan that disrupts the status quo. Four such visionaries, each turning the dial on established practice in their quest to improve the quality of medicine, food and shelter shared their experiences with intellectual property (IP) policy-makers at the first WIPO Forum From inspiration to innovation: the game-changers, on September 24, 2013. These four game-changers Diébédo Francis Kéré (architect), Gopalan Sunderraman (inventor of the "Chotukool" cooling system), Anthony Atala (a pioneer of regenerative medicine) and Henry Markram, (at the frontline of brain research) discuss their ground-breaking achievements and share their views on the elements that need to be in place to enable innovation to thrive.



# **WIPO FORUM**

# Francis Kéré: Uniting tradition and modernity

Diébédo Francis Kéré's award-winning approach to architecture attracted international acclaim in 2004 when he won the Aga Khan Award for Architecture for his work in promoting sustainable and community driven architecture.

Mr. Kéré's work in this area was triggered when his community in Gando, Burkina Faso, asked him to assist them in re-building the local school. Having himself languished in the searing temperatures of the classroom during his school years in Burkina Faso, Mr. Kéré was keen to apply the knowledge he had acquired at architectural school in Germany to create a more comfortable learning environment for the local schoolchildren. Strapped for cash, but determined to support his community, he was forced to think out of the box and to develop solutions using locally available resources - materials, labor and know-how. Transferring a European model to one of the poorest countries on the planet with little or no electricity or clean drinking water, was not an option. So began a journey that is both transforming the lives of communities in Burkina Faso and beyond and inspiring new generations of architects around the world.

Mr. Kéré's architecture marries high-tech principles of engineering with local traditional knowledge and materials. His pragmatic approach "celebrates the locality", complementing local resources with new technology to create elegant and durable structures that, among other features, allow for natural, cooling air flow. "I try to deal with what is locally available. We have a lot of people in Africa and we have local materials so I am using these to create buildings." he said. "Reproducing very expensive models from the Western world, where you need energy to cool the building, in a poor country like Burkina Faso doesn't work."

# **ENGAGING WITH THE LOCAL COMMUNITY**

Gaining the support and trust of the local community is central to Mr. Kéré's approach. "People need to be part of the process. We train local people to use local materials differently to create the buildings. It's very simple, but effective," he said. "It is important to inspire people to use architecture to shape their own future. This is the only way to create something that we can call sustainable."

At first, the community was very skeptical about using local materials to build the school. "It was not easy to convince my people to use clay to build the school, because their experience is that a clay building will not withstand the rainy season," he said. "When I told them we were going to use clay they were shocked. They didn't see any innovation with clay, so I had to convince them. Remember the Western model is our dream but we neither have the financial nor the technical means to do it. But that was a good challenge for me. I had to create a modern building to make the project acceptable to my people; one that was cool inside and adapted to the local climate using local materials and traditional techniques."

Given the high illiteracy rates in Burkina Faso, explaining "engineering and architecture to people who are not able to read and write," was a challenge. Undeterred, he won their confidence by building a series of prototypes, "so people could see how it works," he said.

# **ARCHITECTS CAN EMPOWER COMMUNITIES**

By engaging with local people, Mr. Kéré has helped empower and strengthen the local community and generated a renewed sense of pride. "People say, 'We did it, it's ours, it's modern and we love it'". In this way, he reflected, architects can help reinforce community bonds and identity. The architect's commitment to training local craftsmen is also creating new local employment opportunities allowing them to earn money on local building sites rather than having to seek work further afield.

"Architects can play a major role in developing clever and smart ideas for building," Mr. Kéré said. With one foot in the West – he lives and has his architectural practice in Berlin – and another in Burkina Faso, Mr. Kéré sees his role "as a bridge" between the developed and the developing world. "It is challenging but it's great work," he mused.

"My primary focus is to provide these people with the infrastructure they need and to inspire other architects to develop similar ideas," he said. The international recognition that his work has attracted is very helpful in this respect. "Through my work I have won a lot of awards and have been put in the limelight. Being recognized as the author or creator of something can inspire



# "Don't follow the mainstream. Try to find another way to use your skills to help your community."

young people to use architecture to develop their ideas and to help, and can open up many new opportunities," he said.

There are not many commentators on African architecture, but thanks to Mr. Kéré's work, there is every chance that this will change. "Young people need references, they need heroes and thanks to the recognition that my work has received, a lot of young Africans have discovered a new approach. When people get inspired they don't wait around for somebody else to do it, they do it for themselves."

# AN EMERGING MOVEMENT

Growing numbers of students around the world are recognizing that they can use their skills to make a difference in underserved communities. "There are a lot of young people dealing with similar projects in different parts of the world, there really is a big movement emerging," he said.

Mr. Kéré's advice to those embarking on a career in architecture: "Don't follow the mainstream. Be yourself, Just go! What are you waiting for? Try to find another way to use your skills to help your community. That is how, together, we can make our world better."

# Diébédo Francis Kéré is a game changer because he:

- found a way to improve local buildings by creating structures with natural ventilation systems that are adapted to the local climate;
- uses locally available materials to create modern, stylish, low-cost buildings;
- does not follow the mainstream but seeks adapted solutions that are "embedded in the culture of the people" he is working with.

Francis Kéré's architecture marries hightech principles of engineering with local traditional knowledge and materials to build low-cost, sustainable buildings. p. 6 2013 | 6

# **WIPO FORUM**

# Chotukool: Keeping things cool with frugal innovation

Chotukool is an innovative approach to tackling the problem of food storage in India, a country in which around one-third of all food spoils and an estimated 80 percent of households do not have access to or use a refrigerator. Chotukool is the brainchild of Gopalan Sunderraman, Executive Vice President of Godrej & Boyce Manufacturing, a 100 year-old company based in Mumbai, India. Mr. Sunderraman is also the driving force behind the company's Breakthrough Management and Disruptive Innovation initiative. Not satisfied with a business as usual approach and inspired by Harvard Professor Clayton Christensen's work on disruptive innovation, Mr. Sunderraman is seeking to develop a new business model to serve a pressing unmet social need.

### TRANSFORMING ADVERSITY INTO OPPORTUNITY

"Instead of continuously trying to improve performance to be more and more competitive, the idea is to create a platform that just meets the needs of consumers," Mr. Sunderraman explains. "This way you can create a completely different market. Every disadvantage in society today that is not served is a potential new business."

To create an affordable and attractive food storage solution for people who had never used a refrigerator, Mr. Sunderraman and his team turned the traditional product development process on its head. Translating their vision into reality was no mean task. "To convert an idea into a real business is a very painful iterative effort that involves a lot of sweat. It's not just a eureka moment," he explained.

# **ABOUT CHOTUKOOL**

An example of the power of frugal innovation, Chotukool is a groundbreaking product on many levels – in terms of the technology used, its design and the business model employed to develop and deploy it.

Chotukool is a 45-liter plastic container that can cool food to around 8 to 10 degrees on a 12-volt battery. Abandoning the compressor technology used in domestic fridges, it uses a thermoelectric or solid state cooling system. It does not have a front opening door but opens from the top to ensure that the maximum amount of cool air remains in the container when opened.

# **IMPROVING RURAL LIVES**

Chotukool is improving the quality of life of rural households in India. A low-cost solution to preserving perishable foods for longer periods, it is also creating new income-generating opportunities.

"Chotukools are being used by small shops and kiosks which are now able to serve cold drinks and chocolates. This enhances their ability to earn money," Mr. Sunderraman said. Beyond its usefulness as a cooling mechanism, the Chotukool is also a source of pride. "People are also looking for some prestige, they also want to make choices, so we are now looking at ways to personalize Chotukool and still keep it at an affordable price," he said.

# **ENTER THE "JUST RIGHT" PHILOSOPHY**

Co-created with the community, Chotukool has been designed to meet the specific needs of users. "We wanted to give the people something they can use to meet their daily needs. This is what we call the just right philosophy. This approach is not only relevant for India, it is relevant for the entire world which is the potential market for this product," Mr. Sunderraman explained.

Working with communities on this project fuelled Mr. Sunderraman's conviction that it is "possible to make a difference to their lives." While observation "to try to understand the unmet needs of the people who do not use a refrigerator," is crucial, Mr. Sunderraman is convinced of the advantages of full community immersion. "Only when you jump into the fishbowl can you learn how the fish live. If you're outside the fishbowl observing you cannot understand what the fish go through. Only when you jump in can you understand how cold the water is, or that some fish bite but most of them are friendly."

# **NOVEL MARKETING AND DISTRIBUTION STRATEGIES**

Rejecting standard models of distribution, Godrej & Boyce worked with India Post to deploy the Chotukool to target communities. "The India Post network is very well spread in India and is about three or four times larger than the best logistic suppliers," he observed. For its marketing campaign, the company relied on word-of-mouth recommendations. "We used the logic of people communicating with each other, a kind of word-of-mouth diffusion which is very slow but the best way to reach out because each region and each community in India is different and you need to tailor communications to people's needs." The company is also working with various non-governmental organizations and community self-help groups to spread the word about Chotukool.

## **CHOTUKOOK MARK II**

As the technology continues to improve - Mr. Sunderraman predicts that the next version of Chotukool will bring cooling temperatures down to between 2 to 8 degrees – it will be possible to store vaccines and other medicines. "Imagine if you were able



The Chotukool offers a low-cost, low-energy cooling solution for rural householders in India where an estimated 80 percent of the population do not use or have access to a refrigerator.

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to store small quantities of medicines and vaccines in so many more places, this would significantly improve access to health care. All this could be done with 12 volts," he mused.

# INNOVATION AND THE BENEFITS OF A FRUGAL APPROACH

Reflecting on the importance of innovation, Mr. Sunderraman said, "if you want society to develop and if you want to improve the lives of people, the only way to do so is through innovation. Efficiencies can make it cheaper but innovations can actually reach out to a much larger untapped market. That is why innovation is important."

Mr. Sunderraman noted that frugal innovation was particularly relevant to developing countries because it helps create affordable products that people would not otherwise be able to access. Frugal innovation, however, is not just about affordability it also represents a low-cost, low-risk way of innovating. "The ability to create at a lower price means lower levels of investment are required up front. This reduces the risk and allows you to do more iterations without which these innovations cannot succeed," he explained. "If you have a product that is frugal and an investment process that is frugal, I think innovations will multiply exponentially in the world."

# INTELLECTUAL PROPERTY AS AN ENABLER

Intellectual property, Mr. Sunderraman noted was "a very interesting enabler." Having invested so much time and effort in developing Chotukool, it was important for his company to be able to protect and get a return on the investment it has made. "It took several iterations before we actually got it right. If you're putting in so much effort you don't want to have a second mover who hasn't put anything into the process to have an advantage," he explained. However, he cautioned that IP should not be used as a barrier to access but rather should support the broad diffusion of innovations. Noting the need to bridge the gap between the "haves" and the "have nots" in this world, he urged policy-makers to "look at both sides of the world and to see how intellectual property can enable those who don't have to get closer to those who have. Bridging the gap between developed and developing is all progress and I think intellectual property should be able to help society progress."

The development of Chotukool is not simply the story a product with a new design, it is the beginning of what promises to be an epic journey towards a "cooler" tomorrow for many households in rural India and beyond. By adopting a broader vision that puts

the needs of consumers front and center, Mr. Sunderraman and his team have found a way to penetrate an untapped market. "My experience in developing Chotukool has taught me that it is not just the technology or the product, and it's not just about the design, it's about blending with the business model and reaching out to customers, that is what is really important," he said. "By combining these elements we are actually multiplying the potential of the market in a very big way," he added.

# The Chotukool is game-changing because:

- it offers a portable, low-cost, low-energy (it runs on a 12-volt battery) cooling solution using solid-state technology rather than a conventional, compressor-driven system making it ideal for use in remote low-income communities with low levels of electricity provision;
- created according to the "just right" philosophy, it meets the specific needs of the community;
- it demonstrates the power of frugal innovation and the feasibility of low-cost, low-risk innovation;
- it blends innovative technology and design with an innovative business model and is improving the quality of life of thousands of households across India.

# **WIPO FORUM**

# Dr. Anthony Atala, MD: New body parts – the shape of things to come?



Imagine a world where if the need arose you could order a spare body part to replace a diseased or dysfunctional one, where doctors could cure rather than simply manage chronic, life-threatening diseases. Could this ever become a reality? Dr. Anthony Atala, MD, Director of the Wake Forest Institute for Regenerative Medicine and the W.H. Boyce Professor and Chair of the Department of Urology at Wake Forest Baptist Medical Center, a pioneer in regenerative medicine, believes it can.

Dr. Atala is driven by a deep-rooted desire to offer his patients the best possible treatments. "As a surgeon, there is nothing more devastating than being in an operating room and having to replace a piece of tissue or an organ and not having one to replace it with or not having the ideal treatment," he said. "To create these tissues and organs outside in the laboratory and to have them available would be a really good option for some patients. That's what has inspired our work."

Regenerative medicine offers the potential to transform the medical landscape and patients' lives, offering new treatments for previously incurable conditions. "The ultimate promise of regenerative medicine is not just to help manage disease but to really improve the lives or even provide a cure," Dr. Atala said.

Dr. Atala and his multi-disciplinary team of researchers are adopting parallel strategies to find ways to grow the solid organs people need. Using 3-D printing technology the team is working on projects to create biodegradable scaffolds to produce bone, muscle, cartilage and in the longer-term to print a kidney. The team also re-uses discarded organs which after a washing process are repopulated with a patient's own cells.

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Unlike established medical practice, regenerative medicine is patient-specific and targets the underlying cause of a disease by repairing, replacing or regenerating damaged cells. While the idea was aired as far back as the 1930s, "it has taken us several decades to get where we are today," Dr. Atala notes. Just 30 years ago, he explains, it was not possible to grow most human cell types outside the body. "Today we are at a point where we know how to grow human cells, and we know how to expand them outside the body. We are not yet at a stage where we are implanting solid organs but we are implanting flat; tubular; and hollow, non-tubular organs in patients."

A scaffold for a bladder seeded with a patient's cells. In 1999, Dr. Anthony Atala led a research team that successfully implanted the world's first laboratory-grown bladder into a patient who today is living a normal, active life.

# **LEVELS OF COMPLEXITY**

Regenerative medicine recognizes four levels of organ complexity. "Flat structures, like skin, are the least complex, made up mostly of one cell type. They are not as complex as a tubular organ, like a blood vessel or a windpipe which has two cell types and architecturally is a little more complex as it remains open. It is really just a tube acting to allow fluid or air to go through it at a steady state within a defined range," Dr. Atala explained. Hollow, non-tubular organs such as the bladder, offer a third level of organ complexity in terms of cells, shape and function. In 1999, Dr. Atala led a research team that successfully implanted the world's first laboratory-grown bladder into a patient who today is living a normal, active life. Solid organs such as the kidney, liver and heart are the most complex organ type. With these organs "there are a lot more cells per centimeter and they require massive amounts of blood vessel supply and involve many more cell types," he explained.

While the first three types of organs - flat; tubular; and hollow, non-tubular organs - have been successfully implanted in patients, using a combination of cells and/or scaffolds made from biodegradable materials, "the goal is to keep increasing the number of organs that we implant and someday to be able to implant solid organs. Every day we are getting closer," Dr. Atala said.

# **GROWING NEED FOR HUMAN ORGANS**

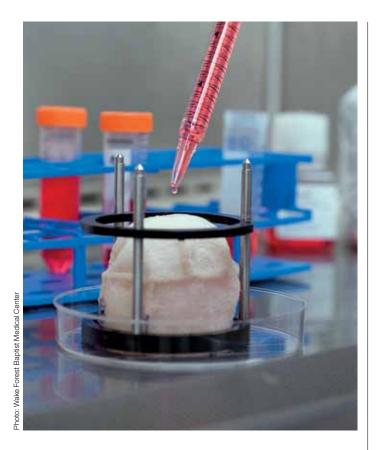
Regenerative medicine is evolving in response to a real need. The demand for human tissue is growing. "Every 30 seconds a patient dies from diseases that could be treated with tissue replacement," Dr. Atala observed. Organ transplant waiting lists continue to grow; every 10 minutes someone is added to the transplant list in the US alone. This is a major problem. "Over a period of a decade the actual number of transplants went up by about one percent but the number of patients on the wait list has doubled," Dr. Atala noted. "We have a major crisis right now because we are living longer and there's more chance of organs failing. There is really a need to have organs available so we don't have to wait until someone dies to be able to transplant one."

One of the major advantages of regenerative medicine is that by harnessing the body's innate potential to heal and replacing damaged tissues and organs with new ones grown from a patient's own cells, organ rejection is all but eliminated. Moreover by focusing on the underlying cause of the disease, the aim is to cure a patient rather than simply manage symptoms or stem a disease's progression. This promises significantly improved quality of life for patients and enormous financial savings for national healthcare systems.

# STRATEGIES FOR CREATING NEW SOLID ORGANS

Dr. Atala and his multi-disciplinary team of 300 researchers are adopting parallel strategies to find ways to grow the solid organs patients need.

"Without intellectual property protection people will not invest in the technology, so if we want to see these technologies used for patients we need to have intellectual property protection. The technologies depend on it."



**3-D PRINTING ORGANS** 

Using computed tomography (CT) images and computer aided design (CAD) software, researchers have developed 3-D printers that are designed to engineer new organs. "Our printing machines are very much like an inkjet printer but instead of using ink we are using cells in the cartridge and they are laying the cells down one layer at a time where they are needed to create three-dimensional structures that can lead to functionality," he explained. The team is working on projects such as bone, muscle, cartilage and a long-term project to print a kidney.

## **RE-USING DISCARDED ORGANS**

Researchers are also using discarded organs. These are taken to the laboratory where all the existing cells are washed away using mild detergents leaving the three-dimensional structure of the organ intact. "We would then use the structure as a mold to repopulate it with the patient's own cells," Dr. Atala explained. "The idea is to take a small piece of tissue from the patient's diseased organ, isolate the normal cells and put them back into the organ which would then be put back into the patient."

# THE CONSTANT SEARCH FOR SOLUTIONS

For Dr. Atala, innovation is a way of life. "The first step to innovation is just to try because if you don't try you will never find a solution," he said. "Anytime we see a barrier we have to find ways to get around it," he noted, underlining the need to constantly

re-examine accepted truths and develop new approaches on the basis of the new knowledge and tools available.

"Our job as scientists," he notes, "is really to develop the technologies. If we can create technologies that are transformational and will make patients better then healthcare providers will want to use them. Then someone will need to invest in the technology and make sure the intellectual property is there. If all these pieces come together, the technology will be produced and it will be used and distributed for patients and their benefit. But it all starts and ends with having a technology that is transformational for our patients."

Despite significant breakthroughs, regenerative medicine is still in its infancy. "We still have a lot of challenges. So many things have to happen for so many different organs. When you start expanding the number of organs you can engineer, you expand the indications, there are new uses, new inventions, new methods, new processes. The field is really wide open. It is an area where innovation can really take hold," he said.

# THE ROLE OF INTELLECTUAL PROPERTY

A veteran-user of the patent system – he has applied for or received over 200 patents worldwide – Dr. Atala is a firm believer that IP has a key role in enabling and advancing medical technologies and ensuring they benefit patients. "Intellectual property is so important. The bottom line is that unless there is intellectual property present we don't have a tool to commercialize these technologies," to make them widely available and bring their cost down. "Without investment the technology will never be transferred to patients. It takes literally hundreds of millions of dollars to produce and distribute these technologies around the world," he said. "People need to know that they're going to get a return on their investment. Without intellectual property protection people will not invest in the technology, so if we want to see these technologies used for patients we need to have intellectual property protection. The technologies depend on it."

The IP system also enables researchers to "put a stake in the ground" making it possible for the research community to keep pace with the state of technological development. "When you know where the technology is from an innovation standpoint you can build on that and create more innovation. This sharing of information is very useful in advancing towards the future," he said.

Dr. Atala urged policymakers, to explore ways to bring down the costs associated with obtaining global IP protection. "To get world protection is a very expensive proposition, so you don't want to eliminate someone from using the IP system because the cost is too high," he said. Dr. Atala also urged policymakers to streamline regulatory processes to help reduce lengthy timelines and contain costs. "Safety is paramount but you can shorten the timeline by taking some of the bureaucracy out of the system," he said.

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### **COLLABORATIVE RESEARCH**

Regenerative medicine is a complex field drawing on multiple disciplines. Researchers at the Wake Forest Institute for Regenerative Medicine share a lab and rigorously test tissues at every stage of development. "Patient safety is of paramount importance to us," Dr. Atala said. "We are dealing with patient's lives so whatever we do we have to make sure that at the very least we do no harm and then that we create a benefit," he said.

Beyond Wake Forest Baptist Medical Center, the Institute is involved in numerous research collaborations (more than 100 national and more than 50 international). "The goal is to create an international network to distribute these cells allowing these technologies to be worked on by many different scientists," Dr. Atala explained. Such collaboration is also enabling the Institute to build an international network of clinical trial sites. "At the end of the day, this will help advance these technologies for everyone."

## THE NEXT BIG THING

"We are constantly looking out for potential breakthroughs," he noted, explaining that the next big thing in regenerative medicine is a series of little things. "We are looking at so many different areas, there are so many small challenges to overcome, small victories to achieve to make the next big advances. It all points to implanting solid organs into patients. That is really going to be a major thing," he said.

"You should never say never," he reflected. "If a salamander can re-grow a damaged limb, why can't we? The potential is there in biology to initiate these systems. The question is how can we make it happen and a better question is when? One thing is certain. These technologies do have the potential to make patients better. For us it is not really about the cells we use, or the technologies we choose, it is really all about making our patients better."

# Regenerative medicine is ground-breaking because:

- it promises to save lives and improve those of patients suffering from debilitating chronic diseases;
- it signals a move from a one-size-fits-all model to a patient-specific model of healthcare;
- it eliminates the risk of organ rejection;
- it focuses on harnessing the body's innate capacity to heal and the cause of a disease and could potentially cure certain life-threatening chronic conditions;
- it opens up a new world of medical treatments;
- it has the potential to transform the healthcare landscape and promises to significantly reduce the healthcare costs associated with treating an increasingly aging and ailing population.

# WIPO FORUM

# The Human Brain Project: Unraveling the mysteries of the mind

The inner workings of the mind to a large extent remain a mystery. However, a pioneering team of scientists working on the Human Brain Project (HBP), led by Professor Henry Markram, is taking neuroscientific research to a new level. The aim is to create a computer simulation of the human brain to gain a more profound understanding of how it works and the diseases that afflict it, and to develop new information technologies that mimic the brain's learning ability. This groundbreaking initiative recently won an unprecedented 1.2 billion euros in funding from the European Union as a Future Emerging Technologies (FET) Flagship project. Unraveling the mysteries of the mind and the project's approach to doing so, promise to shape the future of neuroscience, medicine and computing.

# CHANGING THE RULES OF THE GAME – WHY IT'S NECESSARY

While the human genome has been mapped successfully, charting the mechanisms that drive the brain's intricate circuitry, and its thousand trillion plus connections, is proving a tougher and more complex challenge. Professor Markram believes that without a new game plan, the best efforts of scientists around the world will yield few benefits. "You have to sometimes realize you're banging your head against the wall and going nowhere. In science we just steam ahead and don't actually look at where it is going. I personally don't believe we will understand the brain that way. We have to change the game; we have to look at what we're doing right and what we're doing wrong."

Brain diseases are the third largest contributor (after respiratory and diarrheal diseases) to the global disease burden, undermining the quality of life of millions and straining healthcare budgets around the world. "These diseases cost the world almost 10 percent of global GDP," Professor Markram noted.

Every year, thousands of peer-reviewed papers on brain research are produced – around 100,000 in 2012, at a cost of some 7 billion euros – yet breakthroughs in treating brain diseases are few and far between. "There's an explosion in the amount of brain-related data being generated but there is a decrease in our effectiveness to produce medicine for the brain," Professor Markram explained, noting that in 2012 just five new drugs had been produced to treat mainly peripheral disorders. "Game-changing strategies are essential if we are to understand the brain, to understand the diseases and to build new computing technologies," he said.

# **CREATING A UNIFIED UNDERSTANDING OF THE BRAIN**

The HBP aims to pull together as much brain research data as possible in order to reconstruct the machinery of the brain and establish a unified understanding of where brain research currently stands. "Currently our knowledge is fragmented and we need to build new technologies to understand how all these pieces fit together as a single unit," Professor Markram said. "If we want to understand the machinery of the brain from genes to proteins, to cells and synapses and circuits we have to understand all its components and how they interact to produce the cognitive capabilities that we have. With this model we'll be able to understand the brain across all its levels," he said. "This will ultimately allow us to understand how the brain builds perceptions, how it builds our world. This is essential if we're going to begin to understand diseases in a more systematic way and if we want to build new technologies inspired by how the brain functions."

# SOCIAL AND ECONOMIC BENEFITS

Not only will the HBP's integrated approach help accelerate brain research by identifying gaps in knowledge, it also promises huge social and economic benefits. "The sky is the limit," Professor Markram said, outlining a long list of possibilities ranging from new medicines and diagnostic tools to new kinds of computers. "There is huge commercial potential in understanding the brain but at the same time there is huge benefit to society."

# **IMPROVED DIAGNOSES OF BRAIN DISEASES**

The endeavor promises to generate insights that will improve diagnosis and treatment of brain diseases, of which there are around 600. With error rates of between 30 to 40 percent, brain disease diagnosis and drug development are notoriously difficult. "We need to identify diseases and understand how they are related to each other. We do not promise solutions to these diseases but we do promise a technology platform and a new approach to researching them. Without these we will not easily find new solutions or effective treatments in the future," he said. The HBP's approach, he believes will renew the dwindling commitment of the pharmaceutical industry in this area. "We believe we can show that this new approach is a powerful new way to make it cheaper to screen and look for treatments."

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# THE FUTURE OF COMPUTING

"The brain uses 20 watts – a banana a day. It runs far better than a multi-gigawatt supercomputer. It is the future of computing," Professor Markram said. Simulating the machinery of the brain will require information technologies that are significantly more powerful than existing ones.

"We want to build computers based on how the human brain functions. We do this by extracting principles about how the brain does something, turn these into mathematical equations which are then printed onto silicon chips with extraordinary capabilities," he explained. "We have to build new software to run on supercomputers, we have to drive the development of new supercomputers over the next decade. We want to have a pipeline where we can systematically generate new computers based on certain cognitive functions: this is a very different approach to the way artificial intelligence has gone thus far," he said. These so-called neuromorphic computers – which mimic the brain's ability to learn – will significantly enhance computing capabilities and may also make it possible "to develop chips that could replace certain cognitive deficits," Professor Markam noted.

# **CHANGING MINDS**

The HBP, which brings together a multi-disciplinary team of scientists from more than 80 research institutions across Europe and beyond, is also sparking a cultural revolution within the research community, prompting a shift away from individual lab-based innovation towards multidisciplinary team innovation. "It is team science that is going to give us the hope of



The brain is made up of a thousand trillion plus connections. The Human Brain Project aims to chart the mechanisms that drive the brain's intricate circuitry to better understand how it works. The insights generated promise to shape the future of neuroscience, medicine and computing.

understanding the brain," he said. "This is essential because it requires researchers from across the academic spectrum to work together towards a single mission."

# A TECHNOLOGY PLATFORM IS BORN

The HBP is effectively a technology platform to promote research and development and involves "a massive collaborative sharing process." The aim is for the platform to enable scientists and industry alike to "innovate, build and leverage new tools." "It is not going to be about us innovating, it is about us building a platform that is open. Anybody in the world, in principle, is going to be able to come in and innovate on the platform."

"One of our measure of success will be how successful we are in enabling industries to come up with new tools; for pharmaceutical companies to be able to come up with cheaper and more targeted and reliable drugs faster and for clinicians to be able to more accurately diagnose patients," Professor Markram said.

# A ROLE FOR INTELLECTUAL PROPERTY?

"There is going to be a lot of intellectual property, for medical diagnostics, for new drugs, for new kinds of computers" Professor Markram said. "Intellectual property is very important because if you just have ideas and nobody has the rights to them, it's very difficult to get investment or support for a product that has commercial potential. If you don't file and have ownership you can't ensure that the idea is going to be beneficial to the world. That is why is it is essential that we have a very strong intellectual property agenda."

# TO PATENT OR NOT TO PATENT?

That said, insofar as the project is also driving fundamental academic research, deciding when to patent and when not to, is an important issue. "When we have an enabling technology that will allow others to build on and develop a lot of new technology we go for open source. But if this would not result in the technology's wide dissemination then it becomes very important to patent it," he explained. "We have got to get better and better at making this decision," Professor Markram said, pointing to the need to boost IP awareness within the scientific community.

# A NEED FOR GREATER STANDARDIZATION OF IP SYSTEMS

Given the complexity of the current international IP landscape and the time and cost involved in using it, as well as the collaborative nature of the HBP's mission, Professor Markram underlined the need for greater international standardization of IP laws. "The challenge we face is that there will be a lot of co-ownership of the intellectual property around the world," he said, pointing to the project's emphasis on team innovation involving scientists and innovators from multiple countries. "It is going to become more and more important that countries agree on what the rules are for acquiring and protecting intellectual property. Standardized approaches to intellectual property are going to become absolutely essential," he said.

# The HBP is game-changing because it:

- represents a radically new approach to brain research involving international multidisciplinary teams of scientists:
- promises new tools that will improve the chances of unravelling the mysteries of the brain and create a unified and more profound understanding of how it works:
- will shape the future of neuroscience, medicine and computing.

The phenomenal achievements of these visionary individuals and the enormous potential of their pioneering work offers great hope for the millions of people around the world. "It is only innovation that gives us the possibility of change and of addressing the problems, difficulties and deficiencies that we perceive," noted WIPO Director General Francis Gurry at the close of the WIPO Forum. "The process of innovation these days is an extremely complex one,"" he said, underlining the need for the IP community to ensure that the "IP system, which is designed to encourage innovation, is responsive to social innovation which is the reality of innovation today." ◆

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# TENYEARS OF EU DESIGN LAW

By **David Stone**, Intellectual Property, Simmons & Simmons LLP

It is not very often that new IP rights are born – and even rarer that they should turn ten years old. This year, EU-wide design law celebrates that significant milestone, albeit without a cake and ten candles.

# **DIFFICULT BEGINNINGS**

The birth itself was not an easy one. What was then the European Economic Community of only six member states had first looked at harmonising design law in 1959, with a working group report concluding that any attempt at harmonisation would be hopeless. The work of the companion working groups on patents and trademarks progressed more quickly, with the Community Trade Mark (CTM) coming into force in 1996.

But for the protection of the appearance of a product provided by design law, things moved more slowly, and it wasn't until forty years later that the Designs Directive was adopted in 1998. The Directive, harmonizing the registered design law of the member states of the European Union (EU), was based on the recognition that a harmonized design registration system had become ever more important for businesses. The Directive's primary aim was to provide a level playing field throughout member states of the EU, assisting the aims of a single EU market, by harmonising national substantive laws on registered designs.

Sitting alongside the harmonised national systems were two new pan-EU design rights created by the Council Regulation on Community designs in 2001. This companion legislation created 25-year Registered Community Designs (RCDs), filed at the Office of Harmonization in the Internal Market (OHIM), the EU trade marks and designs office and a short-term three year unregistered Community design right to protect high fashion designs. This two tier pan-EU system aims to cater to the needs of all industries.

The pan-EU rights were not intended to replace the national registration systems, and, indeed, businesses interested in trading in only one or two member states of the EU continue to file for national protection of their designs.

OHIM first accepted applications for Registered Community Designs (RCDs) in early 2003. Ten years on, there are 450,000

registered designs in force in the EU and a developing body of jurisprudence from superior courts to demonstrate the effectiveness of these new rights. Design protection is providing an increasing contribution to culture, economics and society in the EU.

## **COST EFFECTIVE REGISTRATION**

Applicants for RCDs can benefit from the legal security of registration of their IP rights. RCD applications are subject to only limited formal examination, and no ex officio assessment of novelty. The application can be filed in any of the 24 official EU languages, and with one application and one payment it is increasingly simple, fast and economical to obtain a term of protection of up to 25 years. The RCD system also provides for the flexibility of multiple applications with a bulk discount for multiple designs in the same Locarno class (www.wipo.int/classifications/locarno/en/) – the international classification used for registering industrial designs— whether it is a whole spring season of footwear, or a multiplicity of designs for new shampoo packaging.

RCDs provide equivalent protection to national registered designs in all 28 EU member states (following Croatia's accession to the EU on 1 July 2013). The value to businesses is clear: for entities trading in several EU member states, RCDs provide a cost-effective single registration.

Whilst typical times for registration ranged between three to six months in the early years of the system, last year, 2,659 same-day registrations were issued. RCD applications are now mostly filed electronically from two per cent of all applications in the first year to 81 per cent currently. Overall, some 75,000 design applications are filed across the EU each year.

RCDs can be obtained through a designation of the EU under the Hague system for the International Registration of Industrial Designs (www.wipo.int/hague/en/) and can be the base filing for, or take advantage of, priority under the Paris Convention for the Protection of Industrial Property both of which are administered by WIPO. Designers also have the advantage of a 12 month grace period from first publication in which to file their design – their own prior disclosure is not novelty destroying

# Balancing validity and enforceability

PepsiCo Inc v GrupoPromer Mon Graphic SA (C-281/10P) was the first case to reach the EU's highest court on the meaning of "individual character" in EU design law, the key part of the test for both validity and infringement. The case involved an application to OHIM for a declaration of invalidity in respect of an RCD for a 'promotional item for games' filed by PepsiCo. The design as filed showed three images of rappers, also called pogs or tazos. The Court of Justice established that the informed user is more informed than an average consumer but is not a sectoral expert from patent law. A sectoral expert will know too much and will be able to perceive every difference between two designs. For the sectoral expert, very many designs will be valid but very few will be infringed. For the average consumer, however, differences will not be noticed so few designs will be valid but those that are will be likely to be infringed. The Court of Justice opted for somewhere between these two extremes, presumably aiming to give a reasonable scope of protection to a reasonable number of designs. PepsiCo's RCD was invalidated.

for any RCD application filed within the 12 month period. The grace period provides an opportunity for designers to commercialise their design, and to see if the design warrants registered protection.

## **UNREGISTERED PROTECTION**

Alongside RCDs, the unregistered Community design right provides a shorter three year period of protection against copying for seasonal or high fashion industries. As their name suggests, unregistered Community designs do not require any formality, but the right will only subsist if the design is first disclosed within the territory of the EU. Thus, a design first disclosed to the public in Buenos Aires or Delhi can never attract unregistered design protection in the EU.

Unlike the RCD, unregistered Community designs provide a more limited scope of rights – they only protect from copying. Even an identical work cannot infringe an unregistered Community design if it was independently created. Hence, some high fashion rights owners are choosing to register their designs as RCDs, to avoid having to prove disclosure in the EU and/or copying of their unregistered Community design right.

### **NOVELTY**

Like many national design systems, the EU-wide system works on the basis of world-wide novelty. However, the framers of the legislation were keen to avoid a situation where protection for an EU innovation was invalidated by an obscure (and, as was suggested at the time, fabricated) prior design. Thus, whilst any design disclosed anywhere in the world is considered by the informed user in assessing novelty, the informed user ignores any designs which could not reasonably have become known in the normal course of business to the circles specialised in the sector concerned, operating with the Community. This complex construction of words probably means no more than that obscure designs are excluded from the prior art.

Novelty is not examined when an RCD is filed – hence there are certainly designs on the register that are not valid. Third parties can apply to OHIM to invalidate RCDs (or raise invalidity as a counterclaim in enforcement proceedings) – the reality is that comparatively few RCD invalidity proceedings have been filed – just over 1,100 decided invalidity cases is a tiny fraction of the over 700,000 RCDs filed.

# **ENFORCEMENT**

The EU-wide design system introduced a number of legal neologisms. For example, to infringe, a later design must create the same overall impression on the informed user as an earlier design right. The test is the flipside of part of the test for validity – to be valid, a design must create a different overall impression on the informed user than designs previously made available to the public. The 'informed user', a term which is central to many cases under the Regulation and Directive, was not defined in either. Helpfully, the Court of Justice in the *PepsiCo* case (see box) has established an approach to the 'informed user' to ensure that there is a correct balance between validity and enforceability. The informed user is more informed than the reasonably circumspect consumer in trademark matters, but is not as skilled as the person skilled in the art in patent law. Rather, the informed user knows the various designs which exist in the sector concerned, possesses a certain degree of knowledge with regard to the features which those designs normally include and shows a relatively high degree of attention when using them.

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RCDs have a further advantage, in that they can be notified to customs authorities on an EU-wide basis. Rights owners have been creative with this opportunity – notifying not just RCDs for product shapes, but also for logos, CD covers, books and the like.

# THE NEXT TEN YEARS

What do the next ten years hold for design rights in the EU?

One area in which further harmonization is required is the divergent protection for spare parts. The EU-wide legislation denies novelty to spare parts, or as the legislation puts it, component parts of complex products not visible whilst in normal use. Thus, invisible spare parts are not protected at the EU-wide level. This includes, for example, spark plugs and oil filters, but not hubcaps or steering wheels (all component parts of motor vehicles).

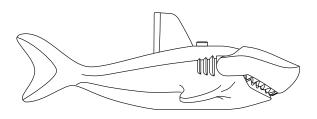
However, harmonization could not be agreed at member state level, so the EU's member states were left with the option to provide protection for spare parts or not, but with the added stipulation that any movement had to be towards *not* providing protection. Thus, it is hoped, national law will gradually be harmonized, as member states move towards a common position. However, this has not occurred in practice in the last 10 years, and now requires amendments to the Directive to ensure a single market in spare parts.

One other area where further harmonization is required is in relation to technical designs. The EU regime excludes from protection design features "solely dictated by technical function". At least two, and possibly more, interpretations of this expression have gained currency in EU courts and tribunals. The "multiplicity of forms" approach in effect asks if the technical function can be achieved by any other configuration: If it can, then the feature is not solely dictated by technical function, and protection is available. The competing "no aesthetic considerations" theory asks "in designing that feature, did the designer have anything in mind other than technical function?". These two theories can lead to very different results: at this stage, it will require a decision of the Court of Justice to ensure that a single coherent interpretation is adopted for features of designs solely dictated by technical function.

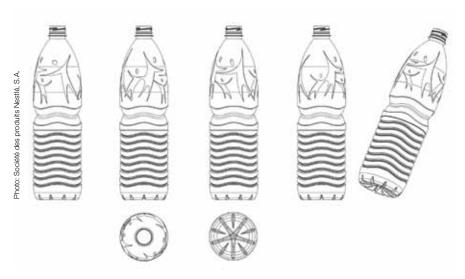
But these are comparatively small quibbles in a system that appears to be working remarkably well. Designers are readily able to protect their designs across a territory housing over 500 million people, whether by registration, or reliance on the shorter unregistered right. Designers seeking to enforce their rights have not always done so without hiccups, but the regime has held together well.

Beyond the boundaries of the EU, a good measure of the solutions for efficient design protection developed by the EU legislation are being proposed to form part of a new treaty currently under negotiation at WIPO. The draft Design Law Treaty aims at introducing simplified design registration procedures to the industrial design laws of WIPO member states. Work on this draft treaty has made good progress.

Now, where is that birthday cake? ◆



Side view of a toy element formed as a shark as represented in an application for industrial design protection within the EU.

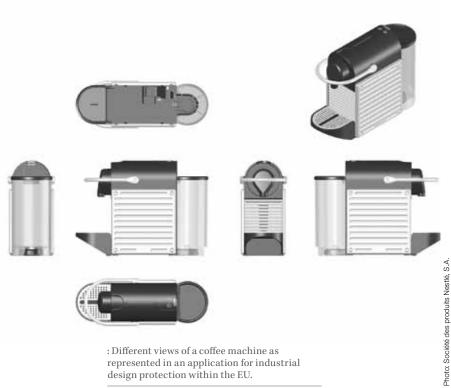




View of a toy element as represented in an application for industrial design protection within the EU.



Tennis racket: View of Head's Liquid Metal 8 Model as represented in an application for industrial design protection within the EU.



: Different views of a coffee machine as  $\,$ represented in an application for industrial design protection within the EU.



By Catherine Jewell, Communications Division, WIPO

Elements of the Exhibition Italian Design Innovation – ADI Design Index 2012 hosted at WIPO from September 25 to November 19, 2013.

Raviolo, a polyethylene archmair suitable for indoor and outdoor use is a continuous inflated looped ribbon with different surface textures on the inner and outer sections. Designed by Ron Arad for Magis. Masters, an original hybrid chair designed by Philippe Starck for Kartell, is a "spaceage" re-intepretation of the work of three contemporary design icons – Arne Jacobsen's  $7^{\rm TM}$ , Eero Saarinen's Tulip Armchair and the Eiffel Chair by Charles Eames.

Piana, a foldaway and stackable chair manufactured using 100 percent recyclable polypropylene designed by David Chipperfield for Alessi





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Every year, the Italian Industrial Design Association (*Associazione per il Disegno Industriale (ADI)*) selects the best of contemporary Italian industrial design to compile the ADI Design Index. An exhibition featuring design projects and products drawn from the 128 entries in the 2012 edition of the ADI Design Index was hosted by WIPO from September 25 to November 19, 2013. The exhibition, *Italian Design Innovation – ADI Design Index 2012*, was curated by ADI, and organized with the support of the Italian Ministry for Economic Development, the Directorate General for the Fight against Counterfeiting, the Italian Patent and Trademark Office and the Permanent Mission of Italy to the United Nations Office at Geneva.

# **CELEBRATING A CULTURE OF EXCELLENCE**

"Italy's people have long been admired for the everyday creative expression that contributes to la dolce vita. This includes a culture of excellence in design that applies aesthetic considerations to everyday objects, taking them from the prosaic to the sublime," said WIPO Director General Francis Gurry in his introductory message in the exhibition's catalogue.

He noted that WIPO's goal is to create "a more robust and enabling environment for future designers around the world". While the Hague System for the International Registration of Industrial Designs offers a "rapid and cost-effective route for protecting designs against unauthorized copying and imitation in international markets," Mr. Gurry pointed to the draft of a new international treaty currently under consideration that seeks to "simplify standards for industrial design registration procedures at the national level".

The Copernico lamp is made up of nine concentric movable rings produced from a single sheet of recycled laser-cut anodized aluminium. Each ring turns independently on two different axes, making it possible to direct the light and to create a variety of configurations. Designed by Carlotta de Bevilacqua and Paolo Dell'Elce for Artemide.

# The ADI Index: a pathway to prestige

Three winning design projects are selected from the ADI Design Index each year to receive the National Award for Innovation (*Premio Nazionale per l'Innovaz Innovazione one*) conferred by the Italian President. These winning designs also qualify for the highly prestigious *Compasso d'Oro* competition. Traditionally celebrating the best of Italian design, in 2015, for the first time, on the occasion of Expo 2015, ADI is promoting a *Compasso d'Oro International* and designers from around the world are invited to participate on the theme of Expo 2015 – *Feed the Planet, Energy for Life*.

# About the Compasso d'Oro

The brainchild of Gio Ponti and Alberto Rosselli, the *Compasso d'Oro* award was created in 1954 by the department store, *La Rinascente*, to acknowledge and promote Italian design excellence. In 2004, the Italian government issued a law declaring the historic *Compasso d'Oro* Collection consisting of 300 award-winning products, "a cultural heritage of national interest," Since 1964 the award has been managed exclusively by ADI.

The *Compasso D'Oro* Collection covers the best of Italian design since 1954 to the present day and continues to expand every three years with new award-winning objects.

# ROUNDTABLE FOCUSES ON ECONOMIC IMPORTANCE OF DESIGN

Ahead of the opening of the exhibition and on the sidelines of the WIPO Assemblies, a roundtable discussion highlighted the importance of industrial design for innovation, economic growth and social progress. The event brought together speakers from government, the private sector and the design community.

In her opening remarks, Ms. Gulino noted that design is "complex and sophisticated," requiring a great deal of research and experimentation to develop a finished product. She also pointed to the importance of design to business and the economy. "Design plays a key role in raising living standards, a better quality of life and it helps economic development," she noted.

Ms. Gulino underlined the importance of developing more streamlined and simplified design registration procedures. "We need more harmonization of legislation in this field especially because different levels of protection of intellectual property rights within different countries generate excess costs for users and encourage counterfeiting," she said.

Noting that the *Compasso d'Oro* Collection was now considered "an asset of national interest", ADI President, Luisa Bocchietto said, "copies of these objects damages not only the designer, not only the company, but the Italian nation.... Protection of these icons of Italian design and of icons of design all over the world is very important because they represent work, economy, not only beauty."

# THE SECRET OF ITALY'S DESIGN SUCCESS

Alessandro Sarfatti, former CEO of Luceplan, attributed the success of Italian design to the "fantastic alchemy" that exists between entrepreneurs, designers and suppliers. "These three actors have made Italian design what it is today," he said. "The designer brings into the company his vision of the world, his ideas and then it is up to the company to stick to the project and realize it," he said pointing to his experience in developing the iconic "Hope" lamp. Built around the idea of the lighthouse lamp developed by the 19th century French physicist Augustin-Jean Fresnel, the lamp is the product of a lengthy iterative process. After months of experimentation, the mutual trust that existed between the company and the designers, made it possible to overcome design challenges and to produce a high quality, commercially successful product.

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The evolving business landscape, however, is putting this traditional business model and these traditional relationships under threat. "The challenge for designers today is to rebuild these relationships and to reignite the creative process within companies," said Valentina Downey who through her LAB.BRAIN. LAB project works with companies to cultivate the proactive and strategic use of design to boost performance.

### CHALLENGES OF PROTECTING DESIGNS

Designing new products requires significant investment. "When companies protect their product, they are not just protecting the final product but all the work behind it," noted Mr. Sarfatti. Imitators, he said, "live off the ideas of others and are basically accepting that the world is not progressing." Ms. Downey agreed, comparing them to a "cancer that eventually kills the intellectual growth of the community."

While Mr. Sarfatti recognized that it is important for companies to protect their designs, he noted that it was often very difficult to prove "that a copy is really a copy of an original because copiers change a few details." Lawsuits, he said, take time and money and while a company needs to factor them into their business strategy, "they can also protect themselves by being innovative so the market knows they are the first."

Mr. Sarfatti also noted that as the integral role of design in the product design process is poorly understood, design is often confused with style and, as a consequence is not given the importance it deserves. "Style relates to the actual drawings whereas the design process starts from an idea which the designer translates into a product. It involves deciding which technologies to use, how to produce it, which solutions to find. It is a 360 degree process, which is easy to describe, but not so easy to implement," he said.

# **DESIGN AS AN ELEMENT OF SOCIAL CHANGE**

In their capacity as strategic designers, Ms. Downey and architect, Ms. Scarzella have been working with communities in Asia and Africa to help create livelihood opportunities and restore pride in their culture and skills through the application of design principles. In an income generating project run by the Good Shepherd Foundation, Ms. Downey and Ms. Scarzella have developed a design training and product development program to help local artisans use design thinking to "grow ideas and find the best solution for a better life," she explained. After assessing the production realities within a given community, Ms. Downey and Ms. Scarzella, develop a training methodology to enable artisans to work more confidently with different types of materials and colors. "In Thailand and Kenya most of the women have a natural and spontaneous sense of color, training in our design methodology gives them an awareness of their work and makes them proud of their cultural skill," Ms. Downey said. This approach brings out "the technical









In their work with the Good Shepherd Foundation, Valentina Downey and Patrizia Scarzella have been working with artisans in Asia and Africa to help create livelihood opportunities and restore pride in their culture and skills through the application of design principles.



Ducati's innovative 1199 Panigale is designed to raise performance levels to the maximum and to make world-championship technology available to everyone.

elements that belong to their own traditions, it gives value to traditional handicraft skills by enabling continuous product improvement and it allows the community to become more competitive and for the local economy to develop sustainably," Ms. Downey explained.

# **GROWING AWARENESS OF THE ROLE OF DESIGN**

There is growing understanding and broader recognition of the importance of design as a driver of economic growth and development within both the policy-making and business communities. Insofar as design is an integral part of the product development process, it is also increasingly acknowledged as strategically important to business, offering insights that can improve efficiency and performance and help create a competitive advantage. Similar principles can also be applied to empower and boost the development and socio-economic status of communities around the world. Fyodor Dostoevsky may well right, "beauty will save the world." ◆

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# PROTECTING IP:

# Striking a balance

By **Mike Weatherley MP**, Intellectual Property Advisor to the UK Prime Minister

After working for 10 years in the music and film industries, in 2010, I was elected as a Member of the UK Parliament. I have since spearheaded many initiatives in Parliament to educate colleagues and stimulate debate about the importance of protecting intellectual property (IP) rights. This work led me to my most recent appointment as IP advisor to the UK's Prime Minister, David Cameron.

In this newly-created role, I face a key question: what is the right approach to maintaining IP rights and how should this be enforced? Does it require government involvement, industry involvement or a mixture of both? A first step in addressing the issue is to examine the implications of both domestic and European reforms to licensing legislation. This is a very complex matter encompassing many creative sectors, all with unique market issues, most of which are characterized by inadequate rights databases (even by the standards of an analogue age, let alone a highly digitized one) and different policies arising from conflicting European national interests.

# PROPOSALS FOR DOMESTIC REFORM

In recent years, the UK Government has commissioned the Hargreaves Review (see www.wipo.int/wipo\_magazine/en/2011/06/article\_0004.html) and the subsequent Hooper Report on the Digital Economy and the Digital Copyright Exchange - or 'Copyright Hub' (see box).

With the Hargreaves Review, many industry experts, commenting on its recommendations for exceptions, felt too much ground was unilaterally granted to consumer advocacy or open rights groups in the name of compromise. For example, parody, classified as qualifying for exemption under the Hargreaves Review, is one example that experts thought perhaps should be reconsidered. IP in both reports was confirmed as an important property right and Richard Hooper's Digital Copyright Exchange feasibility study further advanced the debate with its focus on how an industry-led solution might work.

# **FAILURE TO MOVE WITH THE TIMES**

At the end of the day, the creative industry must take responsibility for its failure to keep pace with the digital age. Technology will always open up new ways to access content. If creators do not begin to embrace these technologies they will lose out, and by default, the market will be dictated by 'open rights' interest groups. The creative industry alone is responsible for not evolving fast enough. The music industry, for example, has spent years saying 'no' instead of 'how?'

The slow uptake of technology is just one area where the creative industry needs to re-examine its policies and beliefs. The creative industry also needs to advocate



The Verdict, 2012 best band winners of the Rock the House competition with Mike Weatherley, MP.

more aggressively for IP rights. In 2010, at the UN Worldwide Internet Governance Forum in Vilnius (Lithuania) it was shocking to see that no one from either industry or government was present to make a case for supporting the protection of IP rights. The Pirate Party, however, was there in full force arguing that all content should be made available for free.

# **RIGHTHOLDERS HAVE A KEY ROLE**

Rightholders from across the industry need to wake up to the fact that they have a responsibility and a key role to play in shaping the on-going copyright debate. The industry talks to itself repeatedly and very effectively, but often fails to engage an outside audience. Some initiatives flourish – including Parliamentary initiatives such as the *Rock the House* (see box), *Film the House* and *House the House* competition projects – but industry does little to "educate" the general public about the advantages of IP protection. Industry has been losing the propaganda war and has allowed the exceptions outlined in the Hargreaves Review to gain currency. Industry tells itself it doesn't like these exceptions, but the public thinks otherwise and their message is the one that is being heard.

# **CREATION OF AN INDUSTRY-LED COPYRIGHT HUB**

A key recommendation of the Hooper Report is the creation of "a not-for-profit, industry-led Copyright Hub that links inter-operably and scalably to the growing national and international network of private and public sector digital copyright exchanges and rights registries...using agreed cross-sectoral and cross-border data building blocks and standards based on voluntary, opt-in, non-exclusive and pro-competitive principles."

Such an approach promises to be far more efficient and effective than one legislated by the academic policy writers of either Westminster or the European Union because it is industry led and therefore has goodwill 'buy-in' of those involved.

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# About the Rock the House competition

The brainchild of Mike Weatherley, MP, Rock the House, launched in 2011, is a Parliamentary live music competition designed to celebrate emerging British artists. The 2013 Rock the House competition attracted over 1.500 entries from musicians and bands. The competition aims to raise awareness among parliamentarians of the importance of copyright to musicians. Members of Parliament. are invited to nominate a solo artist, a band, an under-18s act and the best small live music venue from their constituency to participate in the competition. A panel of international music industry experts and musicians determine the finalists to compete in a live battle of the bands. The winners from each category are then invited to play live at the House of Commons.



Launched in 2011 by Mike Weatherley, the IP-Adviser to the UK Prime Minister, the Rock the House competition seeks to raise awareness among parliamentarians about the importance of copyright to musicians.

# **OTHER SOLUTIONS**

The Motion Picture Licensing Corporation, for example, recognized that the expensive and bureaucratic title-by-title film licensing model for non-theatrical viewing was failing across Europe. Users were bypassing the process, choosing to show videos illegally and thus undermining filmmakers' revenues. To ensure that a reasonable fee was collected, it joined forces with the film industry, to develop and introduce a flat annual fee model which is proving successful. While it is tailored to each territory, it has been applied in many different countries.

However, given the territorial nature of IP law – an IP right having a legal effect only in the country in which it is granted - a central database that directs users to licensing solutions and that provides information such as streaming language, taxes and applicable rules, would be extremely useful. Such a database, however, can never be a compulsory centrally directed licensing solution that takes pricing away from the rights holder. The best way forward is an industry solution with strong government backing.

## **RELEVANCE BEYOND THE UK?**

How, you may ask, is this relevant beyond the UK? Can UK policy be used and applied more broadly within the European Union? As the world leader in the e-world of digital services (ahead of the Republic of Korea, China, Japan and the USA) and one of three net exporters of music in the world (along with Sweden and the USA), the UK is amply qualified to take a lead position in shaping this area of European policy.

While some may believe, wrongly, that the exceptions outlined in the Hargreaves Report, are an indication that the UK is seeking to weaken copyright law, these exceptions should not overshadow the fact that the report as a whole is a ringing endorsement of IP. There should be no confusion. The UK government recognizes the merits of, and is very much committed to, a balanced system of copyright. My appointment is evidence of this.

The European Union is currently asking the creative industries to come up with short-term solutions and the European Parliament is debating medium- to long-term legislation to update copyright law. If, however, as suggested by the Hooper Report, industry can streamline and unify copyright licensing, to reduce the complexity and expense so often used to justify piracy, then the need for legislation and the argument for 'exceptions' are nullified.

Rather than continuing to add to a string of exceptions, a more efficient and plausible way forward would be to encourage the industry to provide simple, affordable and legal access to copyright-protected works. The argument for legislation to enforce copyright protection is still there, but in discussing and implementing future EU directives the focus should be on how to protect copyright holders and their property, not on how to undermine output by increasing exceptions or by granting free access as advocated by some of the more extreme opposing views. This is the delicate balance that any good legislation must reach.

How then can we ensure that legislative and industry approaches strike an appropriate balance between the interests of rights holders and those of consumers? In my view, the way forward is to adopt a "three pronged approach" to IP: education, the carrot and the stick.

## **EDUCATION**

It is the job of industry and government to educate consumers about the importance of supporting IP rights. By not paying for content, we simply encourage the production of poor quality content and help destroy a marketplace filled with a wide choice of diversified products. In such a scenario everyone loses. So winning this argument through "education" is a critical first step.

# THE "CARROT"

When it comes to the "carrot", industry must change the way it makes its products available to ensure that consumers can easily access content legally. Proponents of piracy say downloading content legally is too complicated. Industry, therefore, needs to find innovative ways to ensure that content is easily available and in so doing make piracy a less attractive option. We need to let go of old dogma and identify and further develop new, workable solutions. The Film Industry's multi-format license option for home use, for example, is an innovative compromise. We need to start embracing solutions like Spotify and Bloom.fm, both of which have a one-off licensing model which is proving popular.

# THE "STICK"

If neither "education" nor "the carrot" works, then there needs to be a "stick". Government must back up industry by putting the necessary enforcement mechanisms into place. This would include holding Internet Service Providers responsible if they knowingly facilitate illegal downloading practices and do not take steps to stop this form of piracy.

The creative sector in all countries is a significant contributor to GDP. To flourish society needs to reward those who create. The public needs to get behind the message that getting something for free (or below suitable price) for short-term personal gain, results in innovation and creativity floundering to the detriment of all. So it all starts with effective messages and education about industry's position and the consequences of not getting the copyright policy framework right. Industry then needs to take a lead and give consumers what they want in a rapidly changing market. Industry needs to make sure the 'carrot' is attractive. And then, if all else fails, there needs to be legal support from legislators.

The creative sector needs to show greater flexibility and to be part of the solution. ◆

# About Mike Weatherley

Mike Weatherley was recently appointed by UK's Prime Minister David Cameron to the new position of IP adviser. Prior to his parliamentary role, he was the Vice President (Europe) for the Motion Picture Licensing Corporation and before that was the Financial Controller of the Pete Waterman Group.

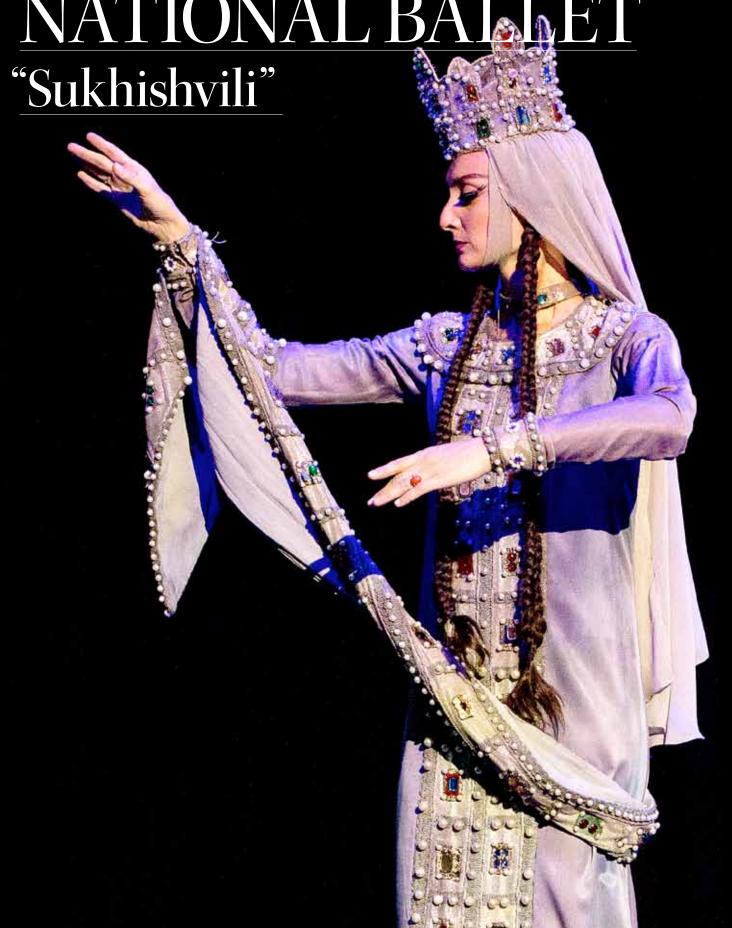
# About the Hooper Report

The independent report, *Copyright Works*, by Richard Hooper CBE and Dr. Ros Lynch, published in July 2012, considers the feasibility of developing a Digital Copyright Exchange as recommended in the Hargreaves Review. According to a press release of the UK IP office, the report's two key recommendations are for the creation of a not-for-profit industry-led, industry-funded Copyright Hub, and the establishment of a steering group to drive forward and oversee the design and implementation of the Hub. The Copyright Hub will have five main purposes,:

- To act as a signpost and mechanism to navigate the complex world of copyright;
- To be a place to go for copyright education;
- To be the place where any copyright owner can register works, the associated rights of those works, permitted uses and licenses granted;
- To be the place for potential licensees to go for easy use, transparent, low transaction cost copyright licensing;
- To be an authoritative place where prospective users
  of orphan works can go to demonstrate they have done
  proper, reasonable, and due diligence searches for the
  owners of those works before they digitize them.

"Setting up an industry led and industry-funded Copyright Hub will help maximize the potential for creators and rights owners on the supply side and the wide range of licensees and users on the demand side," said Richard Hooper at the Report's launch.

# GEORGIA'S NATIONAL BALLET





By Catherine Jewell, Communications Division, WIPO

The choreography of Georgian National Ballet "Sukhishvili" captures the daring athleticism of warring male dancers who fly nimbly through the air clashing swords and

the tender romanticism of courting couples.

For decades, audiences around the world have been mesmerized by the elegant athleticism, energy, skill and originality of the Georgian National Ballet "Sukhishvili". Since it was formally established in 1945, the company has performed in 98 countries, undertaken more than 300 tours and over 20,000 performances, entertained an estimated 60 million people and put Georgian dance on the world map. The Georgian National Ballet "Sukhishvili" is a unique company with a unique history, offering a reminder that creativity does not occur in a vacuum but is a dynamic process that evolves in tandem with society and the spirit of the age.

# A UNIQUE STYLE OF DANCE IS BORN

At the crossroads of Western Asia and Eastern Europe, Georgia boasts an ancient, rich and varied folk tradition. The story of the Georgian National Ballet "Sukhishvili" began back in the 1920s when Ilia Sukhishvili, Sr. and Nino Ramishvili met in the Tbilisi Opera and Ballet Theatre. The two dancers shared a dream of creating a dance troupe to combine the diverse folk dance traditions that existed in different regions of the country. Their interest, however, was not purely ethnographic. They took the essence of these dances, refined and improved their choreography adding their own brand of artistry. By fusing classical, modern and folk dance elements they created a unique hallmark dance style that continues to inspire new generations of dancers and to captivate and thrill audiences around the world.

An exciting and varied choreography combines perfectly synchronized movements of the troupe with the stunning technical prowess of individual performers. It captures the vitality and

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daring athleticism of warring male dancers who fly nimbly through the air clashing swords, as well as the tender romanticism of courting couples who float gracefully across the stage.

Over the last 70 odd years, "the choreography has evolved rapidly and has become more complicated. We take folk movements but we infuse them with our spirit and give them our own "Sukhishvili" personality," explains Ilia Sukhishvili, Jr., chief choreographer and artistic director, who together with his sister, Nino Sukhishvili, runs the company today.

## **DANCE: A LIVING ART**

"It is very important for dance to evolve. Like any art it needs to develop otherwise it becomes something for a museum. You have to add modern elements and mix them with traditional classic movements to keep the performance fascinating and interesting for the audience," he said.

# **CAPTIVATING COSTUMES**

Just at the choreography is inspired by the country's wealth of folk traditions, so too are the troupe's colorful costumes. "Our costumes reflect the traditions of different regions of the country. In the same way that we create our choreography, folk tradition is my inspiration, but, depending on the dance we adapt the shape and the colors to make it more theatrical. I usually see the dance and then create the costume using colors inspired by nature and the style of the region," explains Ms. Sukhishvili who in addition to acting as the company's General director and producer is also its costumer designer.

# PROTECTING THE SUKHISHVILI BRAND

"There are many dance companies in Georgia, but the Sukhishvili choreography and style is distinctive, it has a unique signature or brand. In every art the author needs to be recognized. It is our intellectual property and it is important that we protect it," Ilia Sukhishvili said. The Sukhishvilis trademark was first registered in Georgia in 2005.

While the company is willing to turn a blind eye to children and teenagers who emulate their dance style, they are not happy when other dance companies exploit their work commercially without their authorization. "When I see kids dancing my choreographies, honestly, I am proud, because I see that it is

helping to keep Georgia's folk culture alive. Dance is in the DNA of Georgians, it is still very popular among teenagers, even in night clubs, so when our moves are used in this way, we have no problem with that. It is very important for a country to keep its folk dances and if we can help to do that that is OK. It is good for the country and gives us a sense of patriotism. But when companies use our work without permission and exploit it commercially that is another story," explains Ilia Sukhishvili, Jr. "These people are like common thieves stealing our ideas," his sister added. "There is no logic to copying," notes Ilia Sukhishvili, "dance is so alive, it breathes and every performance is unique and authentic. Dance is not a commodity made in a factory."

# PRAGMATISM VERSUS IDEOLOGY

In the 1940s under a communist regime, the folk heritage of the company's work was its trump card. At a time when folk art was the only palatable form of artistic expression – any individual artistic expression being deemed bourgeois and decadent - the Sukhishvilis emphasized the folk aspects of their work, and refused to lay claim to any copyright. The Georgian State Folk Dance Company, as it was named at the time, was thus permitted to exist. "This was one of the most brave and elegant mystifications in Georgian arts of the 20th Century," notes Nino Sukhishvili.

This same folk heritage, however, is today proving a challenge for the company. "When it comes to folk culture, people think that the folk style belongs to everybody," Ms. Sukhishvili explains. "We have to explain that while our dances are folk in style, we - our grandparents, our parents and now us - have refined them and created a new choreography. The folk dances that we perform are nothing like those that existed before, but other Georgian dance companies like our work and copy it claiming that it's folk and belongs to everybody. This is really very difficult," she said.

# **BREATHING NEW LIFE INTO FOLK DANCE TRADITIONS**

The Georgian National Ballet "Sukhishvili" is also unique in that it is state-owned but run by the Sukhishvili family. "Three generations of our family have dedicated their lives to the company, and to creating our distinctive folk-based choreographies," notes Nino Sukhishvili. "We have given new life to folk dance, helped maintain our folkloric traditions and have made Georgian folk dance popular in Georgia and all over the world." The





Since it was established in 1945, the Georgian National Ballet "Sukhisvili" has performed in 98 countries and entertained an estimated 60 million people. It has put Georgian dance on the world map.

methodology developed by Ilia Sukhishvili Sr. and Nino Ramishvili has inspired new generations of dancers across Georgia and beyond, with Georgian dance troupes being established in countries such as France, Greece, Israel, Turkey, Russia and the USA. In 1970, the troupe was officially registered as an academic ensemble and in 1998 the company set up a private dance school with an annual intake of some 800 aspiring dancers of different ages. "The culture of dance in Georgia is in our blood. It's physically demanding and not well paid but it's still very popular," Ms. Sukhishvili said.

"Dance is a language and Georgian dance is a tale about my country," she said. "When you watch Georgian dance you can feel the spirit of Georgia, its history, customs, traditions, it's very positive. It is a visiting card for my country."

In keeping with the company's search for constant renewal, the Sukhishvilis are currently developing a totally new style, modern dance ballet called the Ramishvilis. This new program will be dedicated to their grandmother Nino Ramishvili.

The first ensemble was made up of 8 girls and 12 boys. Today, the company boasts over 100 skilled performers and musicians and enjoys global recognition. The Georgian National Ballet "Sukhishvili" is living proof that, as noted by New York Times reporter, Ann Kisselfogg, "there is a place for high art in dealing with national traditions. ◆

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# REGISTERING TRADEMARKS:

# <u>UK court sets</u> boundaries

By **Joel Smith** (Partner) and **Sarah Burke** (Senior Associate) Herbert Smith Freehills LLP, London

On 4 October 2013, the Court of Appeal handed down judgments in the cases of *Société des Produits Nestlé SA v. Cadbury UK Limited* [2013] EWCA Civ 1174 and *JW Spear & Sons Limited & Ors v. Zynga Inc.* [2013] EWCA Civ 1175, with Sir John Mummery delivering the leading judgments. The two cases dealt with a similar point of principle and were heard by the same court. In both appeals, there was an issue on whether there was "a sign" registrable as a trade mark in accordance with the requirements of Article 2 of the Trade Marks Directive 2008/95/EC (the "Directive"), as interpreted in the judgments of the Court of Justice of the European Union (CJEU). The *Nestlé v Cadbury* judgment is the leading judgment which considers the Article 2 issues in full.

# **NESTLÉ V CADBURY BACKGROUND**

Cadbury had applied to register a trade mark for the color purple (Pantone 2685C) "applied to the whole visible surface, or being the predominant color applied to the whole visible surface, of the packaging of the goods" for a range of chocolate—based goods in Class 30 of the International (NICE) Classification of Goods and Services. Nestlé opposed the application with the Hearing Officer finding that Cadbury was only entitled to register the mark in respect of goods for which there was evidence of acquired distinctiveness, namely chocolate in bar and tablet form; eating chocolate; drinking chocolate; preparations for making drinking chocolate.

Nestlé appealed against the decision of the Hearing Officer, submitting that the color purple did not constitute a sign and nor was it capable of graphical representation and therefore, was not registrable under Article 2 of the Directive. Article 2 contains 3 conditions: (1) it must be a sign, (2) that sign must be capable of being represented graphically, and (3) the sign

must be capable of distinguishing the goods and services of one undertaking from those of other undertakings.

In October 2012, Judge Birss QC (as he then was) held that Cadbury was entitled to register the color purple as a trade mark in respect of its milk chocolate confectionary, although this could not extend to other types of chocolate or goods. Nestlé appealed to the Court of Appeal on the basis that the judge had made errors in relation to the requirements that a trade mark be "a sign" and that it be "graphically represented", submitting that the mark applied for by Cadbury in this case did not fulfil those initial criteria.

# **COURT OF APPEAL'S DECISION - KEY POINTS**

- Nestlé's appeal is allowed and the trial Judge's decision allowing the registration of Cadbury's trade mark for the color purple is overturned.
- The Hearing Officer and the trial Judge had erred in principle and had misinterpreted the verbal description of the graphic representation of the mark for which application was made.
- The use of the word "predominant" in the description opened the door to a multitude of different visual forms as a result of its implied reference to other colors not described in the application. The *Libertel* case (as heavily relied upon by the trial judge) was distinguished as Cadbury's application covered the registration of a shade of color "plus" other material, not of just of an unchanging application of a single color, as in *Libertel*.
- The Court of Appeal found that the description, properly interpreted, does not constitute "a sign" that is "graphically represented" within Article 2. If the color as claimed is only "predominant", the application would cover other





matter in combination with the color, which is not graphically represented or verbally described in the precise manner required. In effect, this approach would allow the registration of multiple signs with different permutations, which are neither graphically represented nor described with any certainty or precision.

- To allow a registration so lacking in specificity, clarity and precision of visual appearance would offend against the principle of certainty. Further, it would also "offend against the principle of fairness by giving a competitive advantage to Cadbury and by putting Nestlé and its other competitors at a disadvantage".
- The Court of Appeal declined to make a reference to the CJEU on this point (which had been argued by Cadbury's Counsel), finding that the interpretation of Article 2 had already been expounded in sufficient clarity and detail to enable the Court to decide the appeal without troubling the CJEU.

# **MATTEL V ZYNGA BACKGROUND**

This case involved a challenge to the validity of Mattel's "Tile" trade mark which had been registered in association with the board game SCRABBLE. The verbal description of the mark consisted of a 3-D ivory tile which showed a letter of the Roman alphabet on the top of the tile and a numeral in the range 1 to 10. The size and precise color of the tile was not specified.

Justice Arnold granted Zynga summary judgment in November 2012, finding that the registration of the Tile mark was invalid as it did not comply with the first two requirements of Article 2 of the Directive. Essentially, it was not a sign capable of graphic representation due to the large variety of representations encompassed within it (namely the possible breadth of letter/number combinations). Justice Arnold found that the mark was an attempt to "claim a perpetual monopoly on all conceivable ivory-colored tile shapes which bear any letter or number combination...".

Mattel's case on appeal was that the distinctiveness of the Tile mark should be taken into account in the overall assessment for the purposes of Article 2 and the proper place for this

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assessment was at trial (not in a summary judgment hearing). Justice Arnold did not agree that the distinctive character of the mark (which Mattel intended to prove at trial) had any bearing on whether the first two elements of Article 2 were satisfied.

## **COURT OF APPEAL'S DECISION - KEY POINTS**

- Mattel's appeal is dismissed and Justice Arnold was right to find that Mattel's mark was invalid as it did not satisfy the requirements of Article 2. It was not a sign capable of conveying some message; it was many signs.
- Justice Arnold's findings were re-iterated by the Court of Appeal, namely that the Tile Mark is not "a sign" as required under Article 2. The mark potentially covered many signs achievable by numerous permutations, presentations and combinations of the subject matter of the registration. Further, there is no graphic representation of a sign that meets the requirements of clarity, precision and objectivity.

# **BUSINESS IMPACT**

- Protection for specific colors, if distinctive of the brand owner's product or service, is still available, but applications will be scrutinised hard, to check that they are not overly broad or overreach the proper scope of protection.
- Brand owners should avoid use of the word "predominant" in trade mark applications for colors. In providing an assenting judgment in the Nestlé v Cadbury case, Sir Timothy Lloyd suggested that a better description may have been to describe the color as applied "to more than 50% of the visible surface area".
- A trade mark should not be seen to do the job of a
  patent by way of a potentially perpetual monopoly over
  a huge variety of different permutations, presentations
  and combinations. A sign will not be capable of graphic
  representation if it encompasses a large variety of different representations or combinations.
- Precision is vital in the drafting of trade mark applications and brand owners should ensure that the graphic representation for trade marks are clear and precise. If the application could cover different signs achievable by numerous permutations, presentations and combinations of the subject matter of the registration, the application or mark may fall foul of the requirements of Article 2. ◆

# World Intellectual Property Report 2013

Brands: Reputation and Image in the Global Marketplace



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