Creating markets from research

Traditionally, academic research was deemed to be focused on questions of essential scientific interest, the so-called basic research. This was intended to merely disclose new scientific and technological knowledge through publications. In the last two decades this scenario has dramatically changed, and expectations of how universities create and manage their knowledge are changing fast, as this is increasingly considered by academic personnel as a source of income. This is also due to the fact that universities are more and more encouraged to collaborate with private companies in different areas, which constitutes an expansion of their research interests into other sectors, such as biotechnology, nanotechnology, ICT and so forth. All this, coupled with the budget restrictions applied by governments all over Europe, has also forced universities to review their policy on intellectual property and, at the same time, has led to new public support for the commercialisation of publicly funded research results.

In this sense, this Bulletin issue puts emphasis on two interesting reports. The first one is the outcome of a conference organised by the European Patent Office (EPO) on "Creating markets from research results", where major IP players tried to answer the question: Given the strength of research in universities all over Europe and the depth of knowledge among their academics, what more can be done to generate higher levels of innovation and inspire the creation of more high-growth ventures?

A second article is about a report compiled by a group of experts on how the national intellectual property offices can help academic institutions and technology transfer offices (TTOs) enhance technology transfer. In addition to some traditional and more well-known services, the report includes details of a number of examples of national patent offices that have developed sophisticated and targeted services for universities’ IP management and technology transfer needs.

Interview: IP valuation

An interview with an IP expert presents the fundamentals of an IP valuation for a proper management of intangible assets.

WIPO e-tutorial

Within the “do-it-yourself” series, the World Intellectual Property Organization (WIPO) highlights some of the salient feature of its e-tutorial on using patent information, i.e. the technical and legal information contained in patent documents. The Office for Harmonization in the Internal Market (OHIM) tells us the success story of the Registered Community Design (RCD) over the last ten years.

Quiz

As always, you can enjoy the patent quiz and are informed about IP awareness raising events.

A decade of community design

Wishing you an inspiring reading!

Your editorial team
New horizons on university IP

Adam Jolly
Chief rapporteur of “Creating markets from research results”

Expectations of how universities manage their intellectual property (IP) are changing fast. As a discipline, it is moving beyond its original focus on controlling how knowledge leaves the campus and is developing a more strategic, active role in building bridges within an ecosystem of innovation.

As questions emerge over the standard model of spinning out IP, an investigation was held over two days in Munich in May 2013 into one of the main challenges for Europe’s economic future: given the strength of research in its universities and the depth of knowledge among its academics, what more can be done to generate higher levels of innovation and inspire the creation of more high-growth ventures?

Under the auspices of the European Patent Office, the OECD and Technische Universität München (TUM), almost 300 participants were drawn from many of those most actively involved in creating markets from research: major players like BMW, L’Oreal, Nokia and Philips; policy-makers from Europe and the US; venture capitalists and up-and-coming entrepreneurs; as well as strong representation from those within universities who are building the bridges to take ideas and insights through the early commercial stages to the point when they can be adopted by the market: Europe’s technology transfer offices (TTOs).

For all of them, the conventional assumptions on how to commercialise research are shifting. Innovation is becoming more collaborative. Science is being released on new and more open terms. Corporates are pursuing strategic partnerships and running open competitions. Enterprise is becoming mainstream. Governments are expecting universities to make more impact in society and on business.

In exploring new forms of innovation and collaboration, IP is widely recognised as the starting point. As one delegate from a Spanish research institute remarked, it is the ‘grammar’ upon which everyone depends to express themselves. Without it, credibility is hard to establish and trust soon erodes.

For Elmar Mock, the creator of the Swatch and now a leading innovation consultant, who gave a keynote address at the event, IP now holds three distinctive meanings: at the early creative stage it is about intellectual ‘partnership’; when he is thinking about designing a product it becomes intellectual ‘property’; and when he is ready for market it represents intellectual ‘protection’. Similarly, corporates like Nokia run their IP in different dimensions. On some projects, it is open and can be shared. On others, ownership is exclusive and confidential.

For TTOs, it means acquiring a whole range of IP skills to make all these different types of engagement happen. During the course of the two days, a series of recommendations was made about what steps could be taken to improve their performance.

IP policies

In developing IP policies, the best-performing universities are learning how to operate as significant commercial forces in their own right without undermining their core commitment to research and education. No standard solution exists. Depending on its research culture, each university tends to reach its own conclusion. For Professor Dietmar Harthoff at Ludwig-Maximilians-Universität, for instance, the objective is: “to allow the potential for commercialisation while retaining the fundamental integrity of the research apparatus”.

A culture of disclosure

The best results usually occur when IP management is connected up internally and externally, rather than run in isolation. In liaising with academics, TTOs can offer a service to publish their results and secure their IP, while supporting their creative freedom.

Incentives for improving the rate of disclosure of new inventions are rarely just financial. For academics, recognition from their peers and support for their next research project are often just as important.

Measuring impact

Similarly, for universities, the model for extracting as much value as possible from IP is widely seen as counter-productive, because it undermines other forms of commercial and social interaction. Any surplus is a bonus that can be re-invested in its research.

Instead, the commercialisation of IP can make an impact in numerous other ways. Examples include: companies who commission more research; spin-outs who create an ecosystem of local innovation; students who choose to...
It is widely recognised that academic intellectual property is a vital contributor to a country’s economic development. However, further efforts should be made to better convert this knowledge into socio-economic benefits. Universities and other public research organisations need to more effectively exploit publicly-funded research results with a view to translating them into new products and services. To this end, academic decision-makers must be aware of intellectual property, and universities should develop policies in IPR management.

In the last decade several initiatives were launched at European level with the aim to enhance technology transfer in academic institutions. In the European Union a Council resolution was adopted in 2008 on the management of intellectual property in knowledge transfer activities, which included also a Code of Practice for universities and other public research organisations in this area. The document provided policy guidelines for the development or updating of national guidelines and frameworks in order to improve the way public research organisations manage intellectual property and knowledge transfer.

The European Patent Office (EPO) is also highly concerned with this subject and intends to initiate new dynamics between national patent offices, technology transfer offices (TTOs) and universities. In November 2011 the EPO, in cooperation with the Danish Patent and Trademark Office, organised a seminar in Copenhagen on the relationship between the national patent offices and TTOs in the EPO member states. Following the seminar a report has been compiled by a group of experts on how the national intellectual property offices can help academic institutions and TTOs. In addition to some traditional, more well-known services, it includes details of a number of examples in the EPC (European Patent Convention) member states where national patent offices have developed sophisticated and targeted services for universities’ IP management and technology transfer needs.

For Raimund Lutz, vice-president at the EPO, the priority is helping to install confidence at universities in bringing their research to market. Everyone involved, he said, has to understand the potential value of research in creating new growth and identify how IP can be managed as an intellectual asset.

For a report on the EPO / OECD / TUM conference on “Creating markets from research results”, see: www.epo.org/markets

Enhancing technology transfer at universities through collaboration with patent offices

Gábor Németh
Hungarian Intellectual Property Office, Director Innovation Department

At universities like Leuven, Geneva, Cambridge and TUM, the result has been to create an active market for technology on their doorstep. In such cases, the role of the TTO is becoming much wider than simply managing IP filings, but running a whole series of complex interactions and relationships.

As Richard Johnson, CEO of Global Helix, commented, the focus for TTOs is switching from one-time patent sales to strategic collaboration with industry. Only a few universities in Europe have developed the skills to operate at this level.

**IP capability**

To catch up, universities can access a wide range of training and tools to improve their performance through the European Patent Office (EPO) and the European Commission. Elsewhere, a consolidation into regional centres, which have the resources to manage all steps in the transfer of knowledge, is starting to happen in several European countries, either through official interventions or through market mechanisms.

The report “Enhancing technology transfer at universities through collaboration with patent offices – Best practices and emerging needs” is divided into three chapters, plus a section on tools and initiatives containing the actions sheets produced at the Copenhagen seminar.

The first chapter deals mainly with long-term issues, including potential services and political issues. Where possible, an action sheet containing best practice from national patent offices in some EPO member states is provided. These action sheets can be used as a basis for...
Valuing Intellectual Property: practical examples and tips for SMEs

Brian More is Director of Intellectual Property Services at Coventry University Enterprises (CUE) Limited, with responsibility for policy, protection, valuation and commercialisation of all forms of Intellectual Property (IP). Most of his time is now spent in IP valuation for companies, from SMEs to global corporations.

Here is what Brian More has to share with you about valuation and his experience in this field.

**Do you believe that lack of a proper IP valuation can be a barrier for engaging in IP partnerships? Can you give us examples?**

Yes. Most companies who collaborate or want to set up a partnership need to know that the partner owns the intellectual property and its value. I can give you an example based on my experience. For instance a telecom SME that owns a patent can have exceptional value, but that value needs to be justified based on quantitative economic analysis and qualitative assessments. A company like Intel, for example, will only collaborate with this SME if the invention has been protected by a patent. Moreover, these companies assess whether there are no risks of objections to the patent’s validity or infringements, which may result in an invention with a low or no value. The questions are therefore: has it been protected? Does it have a high potential to be used in the future?

In addition to not having valued their assets, in my experience SMEs often quote unrealistically high values that are not based on an economic analysis. I can give you an example in this regard. In the pharmaceutical sector, the final value of the product can be very high, but the risk of a product’s success in this sector is very low due to the clinical trials. Therefore, large companies cannot collaborate with a company that has valued its patent too high. It is therefore fundamental that risk factors are correctly used and probability of success included in the economic analysis.

**Can proper IP valuation help SMEs to better report their IPR in their accounting and, if so, can this help them to better manage their companies and attract funding?**

Yes. From my personal experience every CEO or managing director needs to know the value of its business at any time and IP is a key factor of this. Today many companies are built on intellectual property. In fact, at least 80% of the value of the Standard & Poor’s top 500 companies is based on intangible assets. The point is: without knowing the value of their intellectual property, SMEs can throw away a major part of their book value. In merger and acquisition transactions or negotiations with venture capitalists, SMEs must know the value of their intellectual property or they face a serious risk of losing equity in the deals. So, based on the correct valuation they will not lose equity. All that SMEs and start-ups have is often only intangible assets and therefore this is particularly important for them.

I would therefore suggest that most company board meetings (either in SMEs or large companies) should discuss intellectual property and its current value so that management can make better decisions.

**There are many models for performing IP valuation: based on cost, market, income or option. Selecting the right model seems to be a critical decision, but often complex. Can you give our readers any tips or best practices to help them overcome this problem?**

What I try is to use two or more methods if possible just as a comparison. The result won’t be the same, but this provides an idea of the range of value.

It is also important to understand that for certain assets some methods are more
commonly used. For instance, for software I would use the cost approach. I would use the same method also for customer relationship databases. For things like technology, I use the income approach based on discounted cash flow. In process R&D, which is again technology, I use the income approach, but might also use the option method, particularly if there are several key milestones to be reached before the technology is ready for commercialisation. For trade marks, as a marketing-related asset, I use the income approach, but based on the relief from royalty methodology.

It is also important to mention that often SMEs are surprised by the venture capitalists' valuations, which tend to be lower than a company's valuation. In fact venture capitalists always carry out valuations, but use very high discount rates, which reflects their portfolio risk and leads to lower values. The reason for this is that they are looking to their entire portfolio, whereas the company is not.

The legal status seems to be a fundamental factor in the value of intellectual property, along with technological and economic factors. Could you tell us what are the common legal problems that you encounter when performing IP valuation?

The first issue that I check is whether the intellectual property was registered and granted, because this is what provides the owner with a monopoly right to prevent others from using it. Sometimes I find that in fact the right has lapsed or was abandoned and therefore has no value. Then I always look to see if there are current court cases or infringements, since this can lower the value of the intellectual property right.

Another matter that impacts valuation is the different legal framework in different countries. For example, in India the well known pharmaceutical giant Novartis was recently not granted a patent on an invention, whereas it was granted in 40 other countries. In this country the law foresees compulsory licences for patents, which means that the value of patents tends to be lower. Moreover, sometimes the period of protection is not the same, such as in the case of copyright in the US and the EU. This also has an impact in the valuation.

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Licensing and assignments of intellectual property rights have become common in the market, and the use of these types of asset as loan security has grown. This new reality has given rise to the growing importance of valuation of intangibles. Trading an asset requires knowing its value. Several methodologies are commonly used in the market to value these assets.

The European IPR Helpdesk has developed a new fact sheet where the different methodologies are explained and examples of scenarios of possible use of these methodologies are given. Different tools have been created by public organisations to assist companies performing valuations. These free tools are also presented in this fact sheet to help you save time and money.

Check this new publication in our online library!
WIPO launches e-tutorial on using patent information

Andrew Czajkowski, Head, and
Alex Riechel, Project Officer
Innovation and Technology Support Section,
World Intellectual Property Organization (WIPO)

WIPO has launched an e-tutorial on using patent information, the technical and legal information contained in patent documents. This information is vital to a broad range of professions including scientists and inventors, entrepreneurs, and legal practitioners. The e-tutorial is designed to provide an introduction to various aspects of patent search and analysis for novice to intermediate learners.

In particular, the e-tutorial:
- reviews key concepts related to patents, providing a solid foundation for learners new to the field;
- covers general issues such as search strategy and structure; and
- explores specialised areas such as novelty search (used to determine patentability of an invention) and freedom-to-operate search (used to avoid infringement of patent rights).

With the e-tutorial, you can reinforce your knowledge through detailed tutorials and put your knowledge into context through realistic scenarios, in which you accompany inventors, researchers, and patent professionals in solving problems using patent information.

For example, you can follow Samantha, an inventor, as she decides on an approach to take in order to find patent documents that might already describe the invention she has been working on. In doing so, you are introduced to challenges in using keywords and patent classification, refining a search for relevant documents, and determining when to stop a search.

A diverse blend of fun and challenging exercises will help you test and integrate your newly gained knowledge into your daily work.

Even seasoned experts in the field of patent information may find the e-tutorial a useful reference source and way to check their knowledge on different subjects!

The e-tutorial is available for free in CD-ROM format and online here.
A decade of Registered Community Design

Office for Harmonization in the Internal Market (OHIM)

Anniversaries are always special events, and the tenth anniversary of the Registered Community Design (RCD) was no exception.

Nearly seven hundred delegates attended a conference in Alicante, the seat of the Office for Harmonization in the Internal Market (OHIM), on the 8th and 9th of April, to reflect on the changes and developments in the European design world since the introduction of the RCD in 2003.

Delegates were left in no doubt that design is a strategic asset for many companies; a driver of employment and economic growth. And the choice of the RCD to protect design rights is a popular one. At the end of 2003, 19,722 designs were registered in OHIM. In 2012, 78,653 designs were registered directly with OHIM, with another 9,163 filed through international registration.

And the benefits of protecting design innovation were borne out by the presentations given by speakers at the conference. One Spanish shoe and accessories manufacturer told delegates that his firm invested over €1,500,000 per year in design – through research, creation of prototypes and samples, and the technical adjustments of samples. This investment helps to power thirteen factories as well as maintaining over six hundred direct employees and three thousand indirect jobs. All production is done in Spain, and sent on to more than 40 countries, with more than five thousand points of sale across the world.

That was just one story; the conference heard many more. A representative of a large multinational company described how his business’s dedicated design function employed around 300 people around the world, and was serviced by 65 external design agencies.

Although the design conference looked forward to the future of design, it also looked back at the history of the RCD. Several participants recalled the “sunrise filings” – when OHIM provided for filings on the first day of January 2003, to enable designs to be registered on the 1st of April 2003 – the first day the design legislation came into force.

On the very first filing day, the first applications were delivered by hand into a post box outside OHIM. Fast forward ten years, and that picture has completely changed. OHIM has evolved from a state of manual examination, with no IT tool to support its design examiners, to the current situation, where e-filing is now the norm. In 2012, around 80% of design filings were made via e-filing.

On the 1st of April 2003, one hundred and thirty eight designs were registered and published. But they were the last to be registered on their date of filing until OHIM’s “fast track”

The conference, organised by OHIM, the EU agency responsible for administering the RCD, mirrored the universality and the utility of design in everyday life. Design in all its forms was celebrated by Michelin-starred chef Quique Dacosta, renowned designer Javier Mariscal, leading industry figures, politicians, design law experts and representatives of EU national intellectual property offices.

The conference looked back and forward at the same time. Back to the early history of design in the EU, and forward to its future – with lively discussions on mobile devices, spare parts and gastronomic design among the highlights.

The RCD has undoubtedly been a European success story. It has provided the means with which companies and individuals can assert their design rights in the EU, quickly and at reasonable cost. The first Director of OHIM’s Designs Department, Paul Maier, outlined the advantages of the RCD – its unitary nature, its broad scope of protection and the easy access to that protection, and its automatic extension to new EU Member States among them.
design filing was launched in 2011. By 2012, there were 2,659 same-day registrations, done through the Office’s “fast track” service, which means designs fulfilling some simple conditions are now examined and registered within two working days at most.

More changes are set to come down the track too. OHIM’s design experts are awaiting the expansion of the Hague System, with the USA set to join this year, with Japan and Russia poised to follow in 2014. This should make international design registration a more attractive option, especially for larger multinational companies.

But all forms of business benefit from the RCD. Big multinational companies and SMEs – or even individuals – can enjoy the “grace period” of up to 12 months before a design has to be registered. In other words, a designer (or subsequent owner of a design) can apply for protection up to a year after he first discloses a design, without his own disclosures counting against the registration. The novelty of the design will not be affected.

This has considerable benefits for small businesses which might lack the money to finance the systematic registration of designs, which may or may not be successful on the market.

By the time the twentieth anniversary conference rolls around, delegates may very well be discussing Designview, which was launched by OHIM in November 2012, through its €50 million Cooperation Fund programme. Designview is a free, online consultation tool, which allows any Internet user to search, free of charge, the designs of all participating national offices and OHIM. It has a multilingual interface in all official EU languages, and its daily updates allow access to the newest design information on the registers of EU national IP offices and OHIM.

Since its launch, Designview has expanded quickly. Currently seven EU national offices (Bulgaria, Estonia, Spain, Greece, Latvia, Portugal and Slovakia), plus the Benelux regional IP office (BOIP) and OHIM have implemented Designview.

But the priority for 2013 is to expand further – building up the tool’s databases and thus enlarging its search scope. A further wave of office implementations are planned in 2013 and into 2014, which will grow the tool further from its current total of over a million designs.

As the tool’s base expands, so it is further improved. Work is underway to further enhance the user experience in Designview, building on what’s been done already. Like all OHIM’s Cooperation Fund tools, Designview has been created as a result of a collaborative effort between the EU national and regional IP offices, user groups, OHIM, and other international partners like WIPO.

So where next for the RCD? It’s continuing to grow in popularity as a means of protecting intellectual property rights, and each year, more businesses in Europe and beyond take advantage of the benefits it offers.

The design world is changing too. Some of the topics discussed at the 10th anniversary conference, like mobile devices for instance, could hardly have been imagined when the RCD first came into existence.

It makes you wonder what will be on the agenda at the 20th anniversary conference, which, if the 10th anniversary one is anything to go by, should be a resounding success.

Fancy a little quiz?

As you know in every issue we include a quiz to help you develop your patent searching skills using Espacenet. The solution of the quiz will be given in the following issue. Why don’t you try using Espacenet today? Here comes our new quiz:

**QUIZ**

**Toy guns**

Many kids are fond of NERF guns. Those are plastic toy guns that shoot foam bullets. They are quite fun to play with – even for parents. The model that the boy is holding has a specific cocking mechanism: the plastic handle can be pulled to cock this toy gun.

The model can also be found in these images.

Using Internet sources and Espacenet try to find a patent relating to this mechanism containing figures exactly matching the model the boy is holding.
**Noisy airports**

Aircraft noise is noise pollution produced in particular by aircraft during take off or during landing. When an airport is close to a town, much is done to reduce those noises.

At Schiphol (the Amsterdam airport) some interesting experiments have been conducted. When the surrounding fields were ploughed, some noticed that this resulted in noise reduction. Some experiments were conducted to check if digging ditches had an additional positive effect. The report in Dutch can be found here.

Try finding patents covering such a method to reduce noises around airports or roads by searching Espacenet. This search is a rather difficult one and you may just find neighbouring inventions.

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Patent searches are daunting because one never knows beforehand how difficult they will be. This search can be considered as a difficult one.

**Step one:** To find similar patents, identify the most pertinent aspects of the invention – common technical features that may be found in related patents – and for each aspect, define a comprehensive set of synonyms. To perform the search, the following concepts – groups of synonyms covering the different aspects of the invention – can be defined:

- airport, plane*;
- nois*;
- reduct*, protect*;
- plough*, field*;
- ditch* groov*;

The combination airport* nois* reduct* yields a preliminary list containing patent documents that are not so close to our invention but that can help us in finding the right classification symbols where our invention could be classified.

**Step two:** Use the classification assigned to relevant documents to refine and complete the search.

One of the classification symbols assigned to the above documents corresponds to "Methods or devices for transmitting, conducting or directing sound in general; Methods or devices for protecting against, or for damping, noise or other acoustic waves in general": G10K11. Another classification that also looks relevant that can be retrieved from the classification scheme definition is "Arrangements for absorbing or reflecting air-transmitted noise from road or railway traffic" E01FB. This will not necessarily bring us to an exact match but to possible close patents.

From there on, the best way to continue the search is using classification symbols relevant to our invention.

It is the combination G10K with "airport" that results in a list of documents where you can find a rather relevant document:

**US4244439 (A) - Sound-absorbing structure**

The cited documents in this patent yield other patents one could consider:

**US4015682 (A) - Protecting system for roadway adjacent areas**

One can continue searching. So poor results – if one can call them that – are due to the fact that this invention is not heavily patented which makes the retrieval of a relevant document difficult. One cannot totally exclude the existence of a better record but our search has shown the rather innovative value of the Dutch experiment.
Past training and awareness events

In the last three months the EU IPR Helpdesk organised and provided 12 individual training events in cooperation with local partners, EU IPR Helpdesk Ambassadors and external experts from the EU IPR Helpdesk’s network. More than 300 participants joined these training sessions that took place for instance in Iceland, Sweden and Croatia.

Furthermore, the team participated in 5 awareness raising events, thereby directly reaching out to 270 participants. In addition, the EU IPR Helpdesk services were promoted in workshops, meetings and events organised at local level in Europe by our EU IPR Helpdesk Ambassadors. As an example please find a short report on a workshop held in Zagreb below.

Intellectual Property Interactive: Joint Training with EPO and EU IPR Helpdesk Ambassadors in Zagreb

What is intellectual property? Why should I deal with IP/IPR issues? To which institutions can I turn for help? These were only some of the questions that were tackled during an interactive IP workshop held by the EU IPR Helpdesk at Zagreb University School of Medicine in May. With several experts involved, the training was a perfect example of the successful cooperation between the training team, the University of Zagreb, local EU IPR Helpdesk Ambassadors of the Enterprise Europe Network and the European Patent Office (EPO).

More than 40 attendees from academia, public institutions and small and medium-sized enterprises (SMEs) participated in the training, which aimed to answer the most relevant questions in the field of IP/IPR with a specific focus on biotechnology. The first part of the workshop started with a presentation by Jörg Scherer, training coordinator of the EU IPR Helpdesk, followed by a presentation by the two local EU IPR Helpdesk Ambassadors Vedran Didara and Goran Zekovic, who both work for the Croatian Agency for Business Innovation (BICRO), a member of the Enterprise Europe Network. The three speakers introduced the most important terminology in the field of intellectual property. In addition, they gave an overview of the manifold free-of-charge services that are offered through their networks to help people navigate the field of IP/IPR.

The second part of the workshop was provided by Dr Wolfram Meyer who is a patent examiner at the EPO in Munich, Germany. In his interactive and practice-oriented session he encouraged participants to have a try at evaluating the patentability of various IP examples. The attendees thus obtained a glimpse of the challenges faced by patent examiners every day.

The workshop was very well-received and organisers are planning to host subsequent information sessions on IP/IPR issues in Croatia.

EU IPR HELPDESK AMBASSADOR SCHEME

Following the successful start of the EU IPR Helpdesk Ambassador Scheme, a specific cooperation scheme with the Enterprise Europe Network, at the beginning of this year, a second group of new ambassadors was officially welcomed during a meeting in Brussels on 28th May 2013.

The EU IPR Helpdesk now counts 35 ambassadors from 17 countries, who help to raise awareness of IP and build capacities among SMEs all across Europe.

We continue our search for members of the Enterprise Europe Network, who are interested in joining forces with us, in another call which is open now. The deadline for applications is the 4th October 2013. For further details have a look at the ambassador section on our website.