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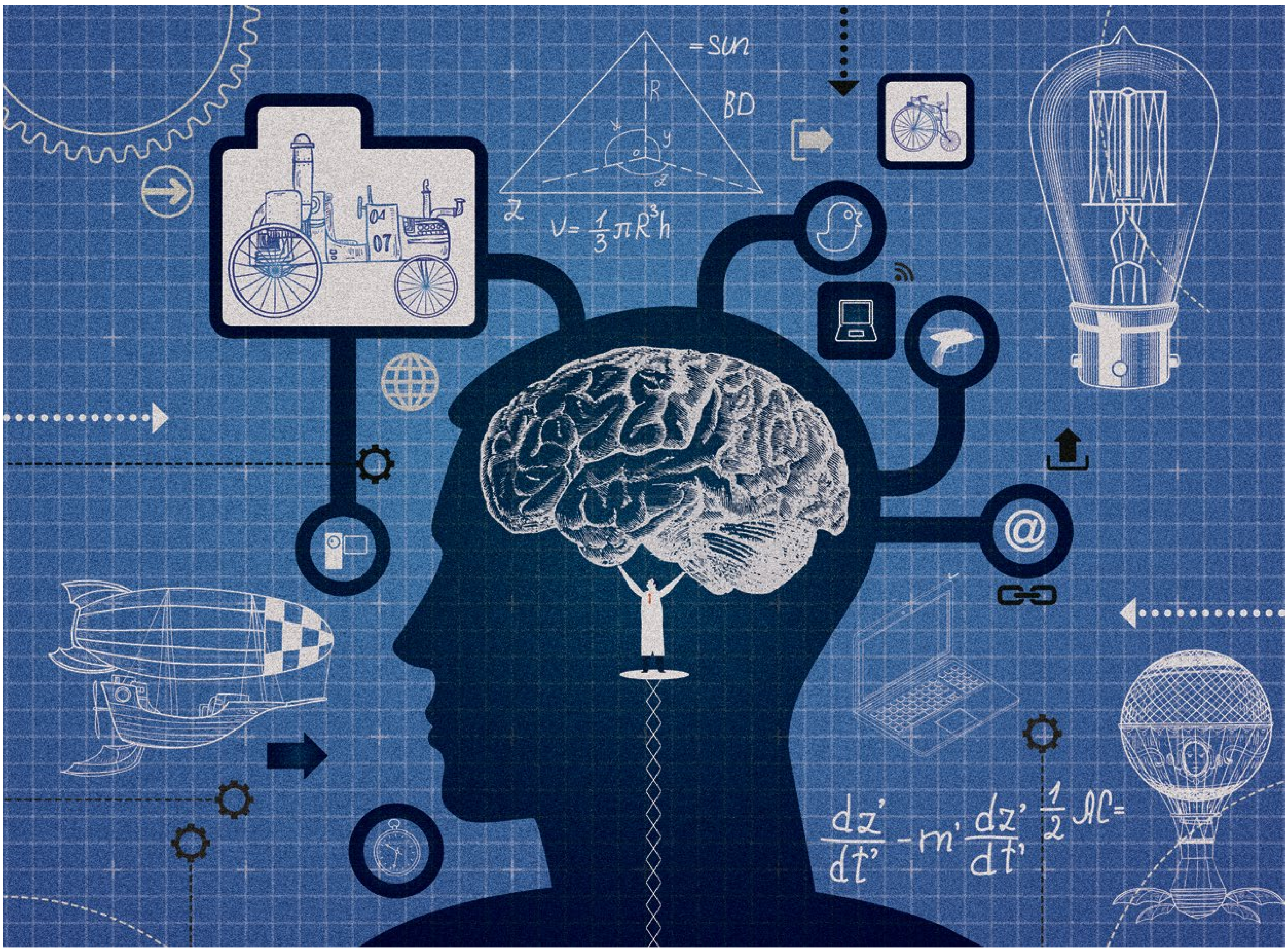
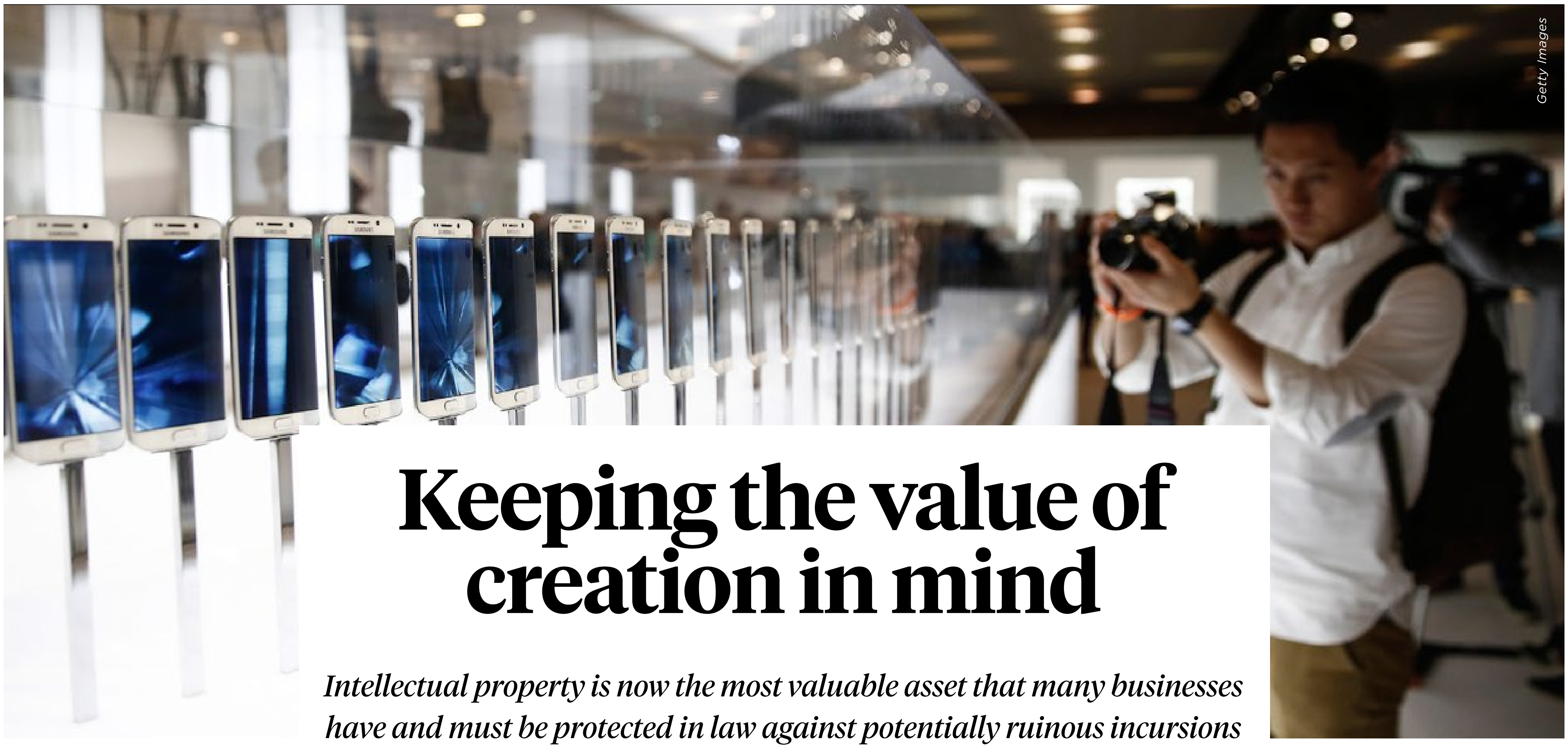
INTELLECTUAL PROPERTY





Getty Images

Keeping the value of creation in mind

Intellectual property is now the most valuable asset that many businesses have and must be protected in law against potentially ruinous incursions

◆ **OVERVIEW**

● **JONATHAN AMES**

From the latest blockbuster cancer drug to a new avenging slayer taking the gaming world by storm, exploiting the commercial benefits of intellectual property (IP) has never been more lucrative. But the legal terrain is also infinitely more complicated than at any time in modern business history.

Stealing a know-how march on competitors is crucial, as is having brand power in the market. Intangible intellectual property assets can form the vast majority of a business's value, but without protection they are increasingly vulnerable.

No market on the planet better demonstrates just how vulnerable IP assets can be than does China. Until the late-90s, the only IP issue in that country was debate over whether state manufactures of zhongshan – Moa suits – should churn out versions in grey or blue.

Now China is the wild, wild east for owners of IP and those trying to protect their rights. Or at least that is the popular perception. But specialist lawyers working in the jurisdiction warn against stereotypes.

They acknowledge that 90 per cent of fake luxury brand products in South-East Asia originate in China. But they maintain the authorities are not turning a blind eye.

"The tendency in the West is to blame all the intellectual property problems in China on the government and the Chinese legal system," according to Paolo Beconcini, a consultant lawyer with the Beijing office of San Francisco-based law firm Caroll Burdick.

But, says Mr Beconcini, the authorities are increasingly cracking down on piracy and establishing rules. A tangible example of this effort has been the recent opening of three intellectual property courts in Beijing, Shanghai and Guangzhou.

IP issues are by no means limited to China. There is huge global growth in activity, with the latest figures from the World Intellectual Property Organization (WIPO) showing that in 2013 worldwide filings for patents and trademarks grew for the fourth consecutive year.

The WIPO statistics show an estimated 2.6 million patent applications were filed worldwide in 2013, a 9 per cent rise on the previous year. Over the same period, trade mark filings increased by 6 per cent.

But dry statistics can only illustrate the story to a point. IP makes a real-life impact on ordinary consumers.

For example, a case earlier this year in the English High Court involved a challenge to the Innocent smoothie drink's ownership of its familiar Dude logo. Innocent prevailed, but the challenge came at the worst possible time just at the point global fizzy drinks giant Coca-Cola was aiming to purchase the business.

> **"** So prevalent is IP in modern commerce that some suggest as much as 80 per cent of any business's value consists of this intangible asset

Indeed, so prevalent is IP in modern commerce that some suggest as much as 80 per cent of any business's value consists of this intangible asset. However, making a value equation is not so straightforward.

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"There is no doubt that the balance between fixed assets and intangible assets has changed for ever," says Nigel Swycher, chief executive of IP consultancy Aistemos and a former specialist lawyer with London law firms Slaughter and May, and Olswang.

"Fixed assets for a business now form the minority of the value of a corporation," he says, attributing the shift to the profound evolution of the global industrial economy. "The most valuable companies in the world today were not around 20 years ago and they have brand new business models."

But, say Mr Swycher and other specialists, the percentage formed by intangible assets and IP varies widely from sector to sector. Property, for example, is at the lower end of the IP-intensity spectrum. While at the high end are businesses such as international mini cab company Uber and online accommodation business Airbnb.

Indeed, at that top end, businesses probably exceed the 80 per cent mark as the only fixed assets they are likely to have include a handful of employees and a computer. The rest is brand, connections, technology, patents and trade marks.

"Experts would say it is entirely sector and definition relevant," adds Neil Nachshen, a partner at D. Young & Co, a London-based trade mark and patent attorneys. "They will shrug and say, it could be 80 per cent or it could be 30 per cent. In big pharma and the bio-tech industries it will always be 80 per cent; others will be lower."

Regardless of exactly how much of a company's value consists of IP, those doing business in Europe need to start weighing up the implications of the long-awaited European Union unitary patent package and unified court.

The court, which will have a branch in London, still does not have an opening date set in stone, but when the system kicks in, the practical effects will be profound.

For the first time, 25 EU states will have a unified patent, which will harmonise procedures for a population of some 418 million. And the Unified Patent Court, which will also be sited in Paris and Munich, will have jurisdiction over all disputes.

While experts generally welcome harmonisation, there are potential problems. "Small and medium-sized enterprises are going to find themselves potentially in a situation where bigger companies are able to injunct and obtain damages against them in one go in 25 states," warns Morag Macdonald, joint head of the international IP group at London law firm Bird & Bird. "It will be very hard for the court to resist that bullying tactic being applied in some situations."

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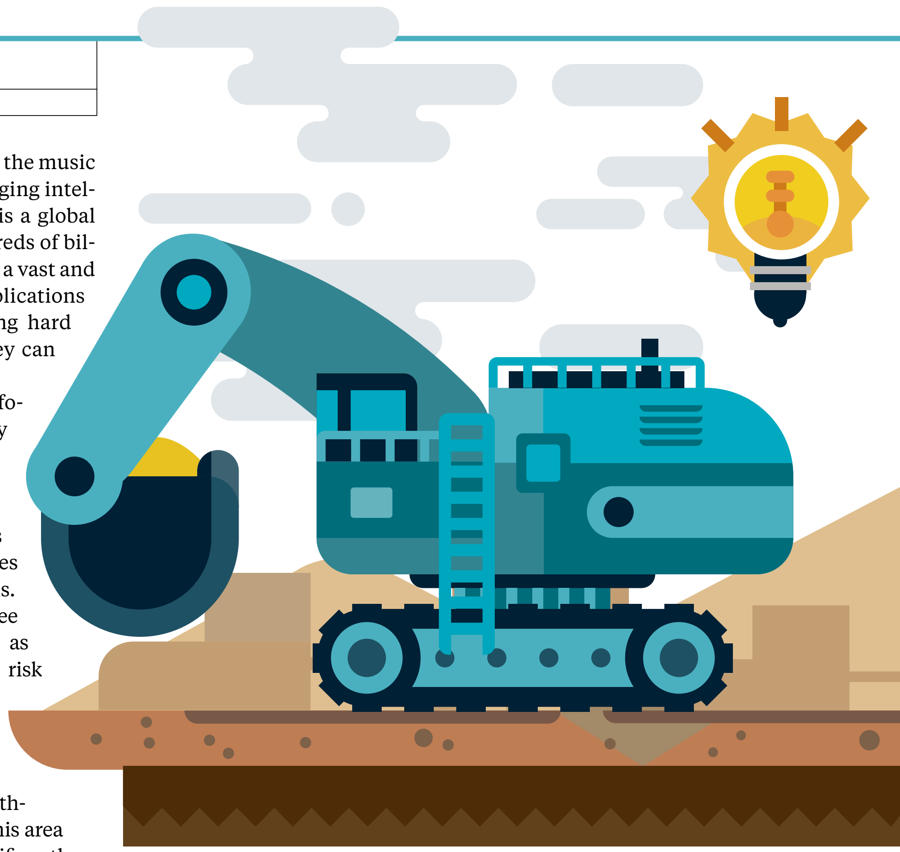
Turning great ideas into gold nuggets

Putting a value on an intangible asset can be testing, but commercialising intellectual property is a lucrative business



◆ **MONETISATION**

● **DAN MATTHEWS**

From IBM's software to the music of Taylor Swift, managing intellectual property (IP) is a global industry worth hundreds of billions of pounds each year. It is a vast and varied landscape full of complications and organisations are working hard to make the most of what they can slap a copyright on.

By creating air-tight IP portfolios they can inflate company revenues significantly and secure the future of product lines by fending off copy cats, granting measured access to rivals or selling intangibles wholesale in colossal cash deals.

Increasingly, organisations see IP as a strategic opportunity as well as a mechanism to limit risk – a sword and a shield. They invest heavily in shoring up brands, ideas and innovations to make the biggest possible gains. Monetising IP is nothing new, but the spotlight on this area of business has sharpened significantly.

IP is a big-money game. A single deal passing rights from one entity to another could be valued in hundreds of millions or even billions of pounds, so the practice of collating, valuing and sweating assets is taken very seriously by firms in the know.

Companies of all sizes use IP, whether they are conscious of the fact or not, but the larger ones spend time and money making sense of what they have in front of them. The rationalisation process is complicated – what is the value of an idea? – and it requires experienced people with a firm understanding of territorial laws, commercial markets and rival innovations, among many other factors.

"IP is increasingly important in corporate transactions, which is why implementing an intellectual property strategy is so vital," explains Nigel Swycher, chief executive at Aistemos, a company offering a range of IP, analytical and risk-management services.

"An IP strategy consists of the measures that are implemented and monitored by a company to ensure its IP rights are developed, exploited and respected in a manner which is consistent with, and adds to, its commercial goals and objectives.

"It requires the broad participation of management from all areas of the business. This can be a radical change for some companies, where IP has been the sole responsibility of the legal department and where the remit has been limited to obtaining trade marks and growing a patent portfolio."

According to Stuart Haynes, corporate and commercial partner at law firm Aaron & Partners, companies should take a methodical approach to separating, identifying and valuing individual strands of IP.

This process includes teasing apart each strand's uses by territory, market sector and application, now and in the future. Licences should be created for each variable, maximising revenue streams without creating roadblocks, says Mr Haynes.

He adds that the strategy should take into account potential revenue streams, which would work in tandem, such as training, installation, supply of tools, marketing material, product installation, ongoing technical support and so on.

By separating a demarking each asset, its uses and its worth, companies can start to incorporate their portfolios into an over-arching growth strategy.

This is obviously quite a laborious process, so software vendors have attempted to take some of the strain. The latest tools help managers gauge their IP across different measures, including geography, technology and industry, as well as the status of infringement claims and competitor analysis.

Joan Mill, chief executive of Novum Global Strategies, a company supplying IP portfolio management applications, says software can save hundreds of work-hours. "As all data and processes are wholly integrated, no time management effort is used searching for missing data or reporting across disparate systems. This is otherwise tedious and in some instances impossible," she says.

> **"A single deal passing rights from one entity to another could be valued in hundreds of millions or even billions of pounds**

Good software should enable a list of tasks, such as allocating the cost of an IP portfolio, by relating invoices, managing global portfolio performance, enabling quick search for details, comparing internal information with external sources, segmenting portfolios and creating instant reports from data.

It's no surprise that companies capitalising on IP are the sort of ideas-driven businesses that create a lot of new stuff and have innovation at the very heart of what they do. Global tech firms have thousands of registered patents and are constantly at war with rivals over whether or not these have been infringed.

Companies use their IP tactically to slow down the innovations of others and invest millions guarding the smallest details of their prized products. Not all of this is healthy, of course, but it goes without saying that these companies put so much emphasis on IP for a reason.

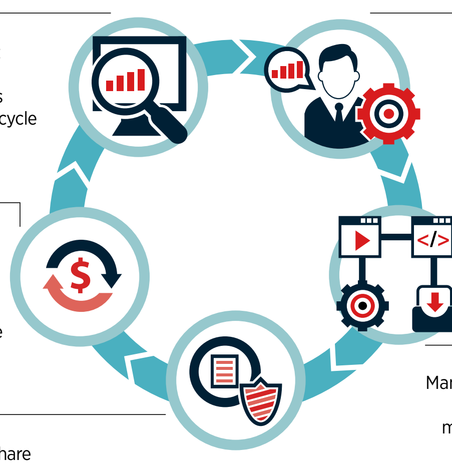
"Companies that successfully monetise their IP invariably have an IP culture. They have an IP strategy so they know what to do with IP from creation through to monetisation," says David Bloom, founder of SafeguardIP, an intellectual property insurance broker.

"They seek expert advice and have board-level buy-in to deliver the strategy. They understand their market and what the goal of their IP is. They recognise innovation when it is created, and have a process for formally recording and registering it, and they ensure the entire concept is appropriately protected."

Small businesses and non-tech firms, even those without anything obvious to protect, could benefit from drawing on this approach. Understanding what you have to offer puts a new perspective on what generates value in your business.

It helps investors understand why they should back you and tells buyers they should get serious about an acquisition. Companies that stick with finger-in-the-air assessments could be missing out on an IP gold mine.

5 STEPS OF THE IP LIFE CYCLE



01 Analysis
Technical and market intelligence to guide investment processes throughout the IP life cycle

02 Strategise
Build an IP strategy for your company's goals, priorities and products, developing a framework for programmes and processes that need to be implemented

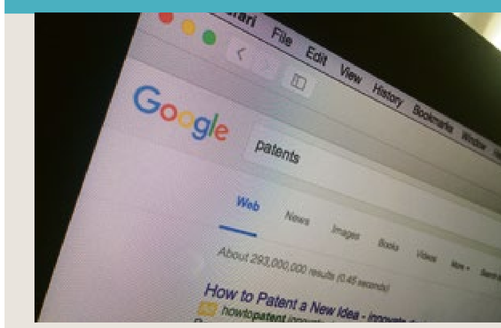
03 Build
Manage the IP portfolio with quality assessment, acquisition and selective focus on patent development

04 Defend
Protect your market share and minimise the potential for third-party patent assertion

05 Monetise
Patent assertion (licensing) and patent sales (divestiture), generating funds for renewing the life cycle of innovation

Source: Intellectual Property Office 2015

CASE STUDY: GOOGLE



In April, Google – the famous devourer of cutting-edge IP – announced the launch of a new test programme to speed up the process in which it buys patents from businesses wishing to offload their brilliant ideas and creations.

The Patent Purchase Promotion, which went live the following month, is meant to "remove the friction" from the market and speed up transactions, offsetting the dragging effect of non-practising entities, also known as patent trolls.

Organisations and individuals can list the patents they have available and even set their own prices. Whether Google buys or not is a different story, but the system essentially helps put opportunities in front of the business and takes out some of the leg work.

The offer site was meant to be live for just a few days, but Google is still open for submissions, possibly indicating that the original call to action was a success. It promises swift resolution to deals after working with the sellers on due diligence.

Google essentially wants to snaffle exciting new patents and before they end up in the trolls' hands. The website permits multiple submissions, in English, but will only grant one patent per submission. How Google evaluates each submission has not been revealed.

Successful applicants could expect a decent pay day, however. Google is known for its regular big-money gambles. The company has acquired nearly 200 companies, with its largest purchase to date being Motorola Mobility, bought in 2011 for $12.5 billion.

Other major deals over the years have included YouTube, acquired in October 2006 for $1.65 billion; DoubleClick, scooped in April 2007 for $3.1 billion; and Nest Labs, purchased in January last year for $3.2 billion.

STRATEGIES FOR MONETISING IP RIGHTS

01 Licensing and cross licensing

02 Outright disposal or divestiture

03 Securitisation of royalty streams

04 Technology transfer

05 Joint venture or collaboration

Source: MyIPO

COMMERCIAL FEATURE

WHERE'S THE VALUE? STRATEGIC INTELLECTUAL PROPERTY MANAGEMENT

Managing intellectual property is an intensifying challenge for managers in almost any industry

DENNEMEYER
First choice in IP

If well executed, strategic intellectual property (IP) management can contribute to top-line results and also enhance the bottom line, says Sevim Süzeroglu-Melchiors, IP expert at Dennemeyer Consulting, an international IP management specialist.

Hans-Georg Greif, head of patents at RWE, adds: "In a joint project team with Dennemeyer Consulting, we developed our new patent strategy, organisation, processes, resources and basics for software tools. I am proud that our implemented patent competence centre passed several, even externally driven, assessments, with the result that our patent management is up to date with no need to improve further."

Efficient IP management is important to handle the growing number of patents and trade marks, as companies are now filing more and more IP rights.

PATENT EXPLOSION
All major patent offices around the world are exposed to a patent explosion. Over the past five years, the number of patent applications filed globally has grown by 33.5 per cent. The trend is particularly dramatic in some commercially significant technologies. In computer technology, for example, the increase is 85 per cent.

On top of the increase in numbers is the complexity and intricacy of patents. In recent years, the growth in patent voluminosity has become extreme. For example, the European Patent Office received an application with 283 priorities, 80,259 sequences and an estimated 50,000 pages in a biotechnology application filed together with genetic sequence listings.

Paradoxically, this increase in patent activity does not seem to be the result of a boost in research and development spending. R&D expenditures of OECD member states revealed a slight decrease.

FIVE Ps IN IP

1. Perspective: Define an IP strategy which reflects the corporate strategy, supplemented by medium-term objectives.
2. Position: Categorise your patents and identify your own IP competitive position, taking into consideration strengths and weaknesses such as white spots.
3. Purpose: Define strategies per patent category, such as securing your crown jewels, aggressively patenting of early inventions, exploiting the patent portfolio to maximise return on investment, and blocking competitors from key technologies and markets.
4. Performance: Optimise your patent management such as organisation, processes or cost-benefit ratios to achieve performance improvements.
5. Profit: The patent portfolio of a company is a valuable asset. As owner of a patent, you can exploit your invention not only to secure an exclusive position on the market, but also you can sell or licence your patent.

STRATEGIC PATENTING
An explanation for this apparent paradox lies in a trend towards "strategic patenting", where patent applications are motivated not by the purpose to protect a specific innovation, but by a desire to secure a market position against competitors.

A strategic patent or portfolio of patents can prevent a competitor from developing, manufacturing, offering and selling a similar product. It may also deter competitors from even entering the market.

In short, the role of IP management has changed from creating a legal barrier to prevent copying of innovations, thereby securing a return on investment, to a sophisticated utilisation of patents to achieve maximum strategic benefit and business competitiveness.

HOW TO HANDLE A GROWING PATENT PORTFOLIO
The drawback of strategic patenting is the resources needed to manage a complex portfolio. Quantity does not guarantee quality; indeed the larger the portfolio, the more difficult it becomes to ensure that it is serving its strategic and economic purpose. When a patent portfolio becomes too large, individual patents and applications often cannot be managed efficiently.

However, methodologies and tools are available to support analysis, reporting and steering of complex portfolios. Performance indicators, such as patent strength, citation frequency, and age and country distribution, can be evaluated and interpreted to support strategic decisions. Specialised visualisation methods, for example patent landscaping, create transparency for non-IP professionals and help enable sound executive decisions.

Dennemeyer's experience shows that the evaluation and interpretation of patent portfolios, including the generation of patent landscapes, requires a deep understanding of the technology, the patent portfolio and the competitive environment.

SURVEYING THE LANDSCAPE
With patent landscaping, a company's portfolio can be inspected and managed in respect of:

- Identifying white spots or areas which are not yet protected, but are essential to implement the company's innovation strategy.
- Benchmarking and infringement detection; comparing the company's patent portfolio with competitors' portfolios enables executives to assess trends, discover potential growth areas, to avoid infringing others' patents, and to identify enforcement opportunities.
- Outdated clusters of patents, typically related to technology that is no longer needed to fulfil the company's core business objectives; often such clusters still offer a value and can be sold or licensed-out.

Patent landscaping is a first step to facilitate obtaining reliable information on the value of a portfolio or certain patent clusters within the portfolio.

> We are delighted to receive the Acquisition International's 2015 IP Innovation Award. This recognition reflects our continued dedication to developing services to meet the needs of the IP industry. I am proud that our team's hard work has distinguished itself...
> *Dr Malte Köllner, patent attorney at Dennemeyer's Frankfurt office*

GETTING THE MOST OUT OF THE PATENT PORTFOLIO
Expert analysis of a patent portfolio can help an enterprise understand:

- White spots, which can feed key information back to technology and innovation management to ensure sustainable future developments.
- Costs of maintaining the portfolio, as well as strategic opportunities and threats.
- Exploitation potential of the patent portfolio to maximise return on investment.

"With the increasing importance of IP as a driving force of innovation and economic growth worldwide, IP rights have become central to the modern economy," says Cary Levitt, Dennemeyer's US chief operating officer.

"At the same time, it is increasingly challenging to find IP professionals possessing the education, technical background and global experiences necessary to enable businesses to grow, beat the competition and do it all cost effectively.

"The challenge is big. That is why I am proud to be a member of the Dennemeyer team. The company employs a collegial group of professionals, who are delivering a wide range of consulting, legal and administrative solutions to the global IP community. They are intimately involved in cutting-edge issues with IP thought leaders and are contributing to a growing body of emerging topics – with the ultimate goal of adding significant value to our customers around the world."

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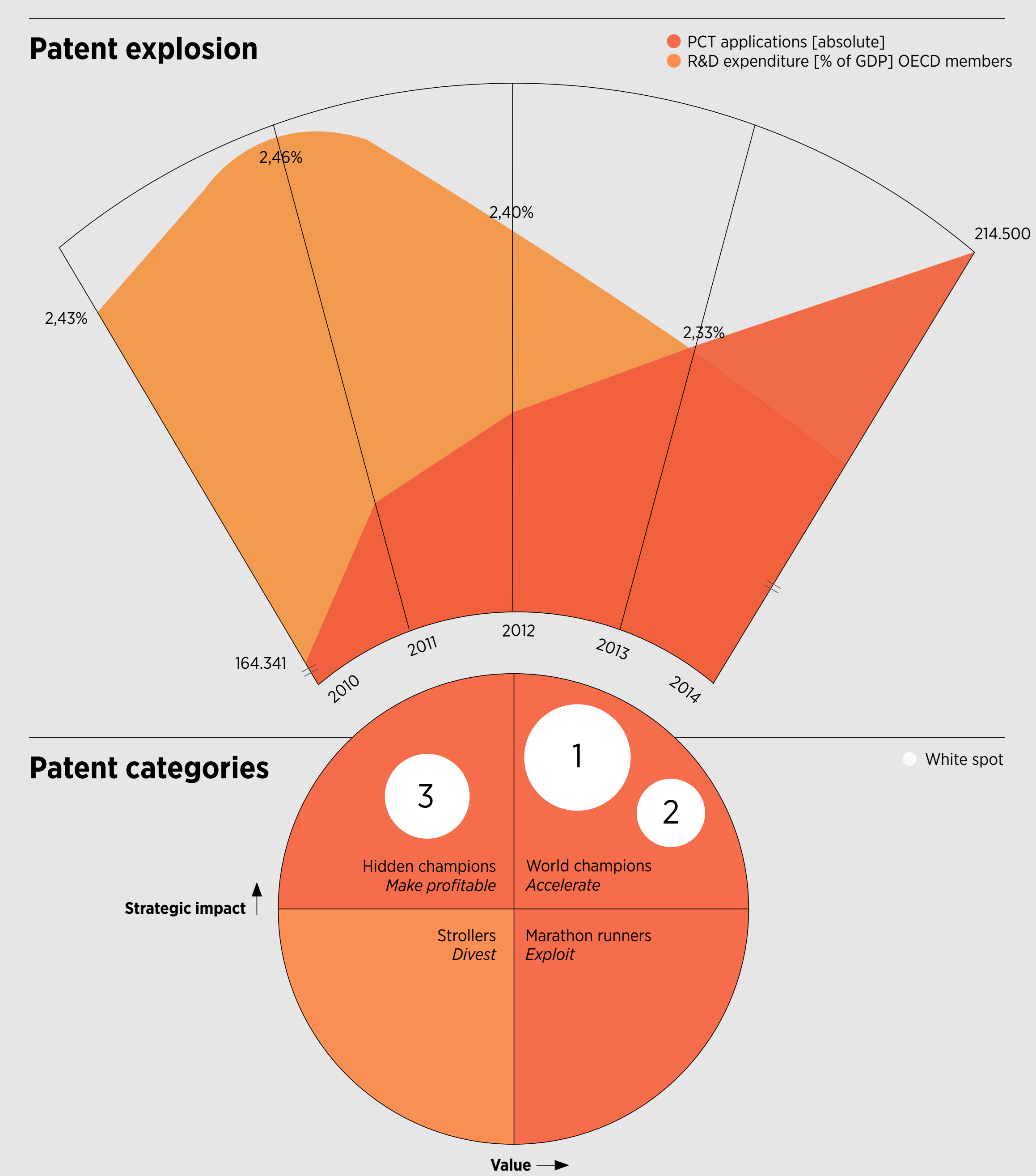


Patent explosion source: WIPO statistics database/World Bank/OECD/Dennemeyer analysis/Patent Co-operation Treaty (PCT) research and development, 2014 data interpolated. Patent categories source: Dennemeyer analysis

Is it time for radical reform of UK IP law?

Does the UK intellectual property and patent regime need a shake-up? Does it do the job or is it unfit for purpose?


Getty Images

◆ **REFORM**

● CHARLES ORTON-JONES

In October 2014, the UK brought into force a new package of measures to reform intellectual property (IP) law. The changes included a greater freedom for consumers to use digital media they owned, for example to copy a song from their CD to an MP3 player. Copyright got a make-over, expanding exceptions to parody and caricature. Quotations could be cited more liberally, so long as use was fair and proportionate.

According to the Minister for Intellectual Property, Baroness Neville-Rolfe: "These changes are going to bring our IP laws into the 21st century. They will mean that the UK IP regime will now be responsive to the modern business environment and more flexible for consumers."

But was she right? Is the UK patent system fit for purpose? Since the reforms were enacted there has been a steady grumbling from entrepreneurs and lawyers. At the extreme end of spectrum lies the Pirate Party view that the basic philosophy of modern patents is flawed.

Until recently the Pirate Party was dismissed as a fringe group. Lunatics. Then it started to accumulate votes in elections and last year won a seat in the European Parliament. The MEP, Julia Reda, was named rapporteur of the parliament's review of the 2001 European Commission Copyright Directive. Her draft report advocated a reduction in protective periods, an expansion of exceptions for educational purposes and a boosting of an author's rights when negotiating with publishers.

> Applying for a patent is expensive and time consuming, which is off-putting for many young companies

Even that bastion of cold reason, *The Economist*, is propounding wholesale review of patent theory. In August it stated: "The evidence that the current system encourages companies to invest in research in a way that leads to innovation, increased productivity and general prosperity is surprisingly weak. A growing amount of research in recent years, including a 2004 study by America's National Academy of Sciences, suggests that, with a few exceptions such as medicines, society as a whole might even be better off with no patents than with the mess that is today's system."

An influential 2012 paper written for the Federal Reserve Bank of St Louis by two economists concluded: "There is no empirical evidence that they serve to increase innovation and productivity, unless the latter is identified with the number of patents awarded – which, as evidence shows, has no correlation with measured productivity."

So where are we? The mood from entrepreneurial companies varies, of course, but it's not hard to find radical views.

Ocado has shaken up the British grocery scene, making home deliveries of the weekly supermarket shop a reality. Paul Clarke, Ocado's chief technology officer, believes there is ample room for a shake-up. He has two suggestions.

"IP arising from any invention, which has been supported by government grants, must be in the public domain. This means firms are less likely to apply these funds to their 'secret sauce' projects," he says.

And the second: "Instead of the current 20-year fixed-term patent, companies could be granted a patent on a sliding scale of duration – from 0 to 20 years – based on the proportion of public funding behind the invention. To avoid the need to change international patent law, companies could contractually commit for the patent to lapse after a given period."

Bloxx is a giant in the field of e-mail security and depends on patents to keep its lead over rivals. Yet chief executive Charles Sweeney can find a variety of areas he thinks need improving.

"Applying for a patent is expensive and time consuming, which is off-putting for many young companies," he says.

One minor glitch troubles him: "You are told at the beginning of the process that, once you submit your patent application, you can only use the language included in your submission. At no stage can you introduce new words. So if you use the word rapid, you cannot refer to speed or velocity. It is actually incredibly restrictive.

"We submitted our patent application in 2006 and all these years later we're having to use the exact same wording. It would be great if they introduced more flexibility, but I don't see this happening any time soon."

Lawyers may shrug and claim that laymen don't appreciate the logic of the current system. But in truth there are many top-level partners who also believe the current system is sub-optimal.

Robert Guthrie, a partner at law firm Osborne Clarke, frowns on the October 2014 revamp. "In reality, the changes were minor tweaks to the UK's IP laws," he says. "Indeed, much of the IP regime in the UK is governed by European Union law, so unless there is an unexpected 'no' vote in the EU referendum, it is Brussels not Westminster that will have to bring our IP law into the 21st century.

"Even though the significance of the October reforms was always marginal, subsequent events have rapidly destroyed any possible claim that they represent a substantial change to the IP regime in the UK. The centrepiece of the reforms was the inclusion of a new private copying exception that would, for example, allow people to copy music from CDs on to their MP3 players without infringing copyright, even though such private copying was, of course, already commonplace. However, in July 2015 the private copying exception was quashed by the High Court following a judicial review brought by representative bodies of musicians, composers and the music industry."

Lawyer Mark Owen, a trade mark and copyright partner at Taylor Wessing, says the growth of technology will mean there are always problems. "The position of copyright law is hard enough to resolve, even with the current state of technology," he says. "Rapid developments will bring new challenges and questions, and copyright law will again find itself being blamed for being insufficiently flexible and forward-looking."

In particular, says Mr Owen, the European Commission's mission to create a digital single market has its work cut out. He identifies two hot spots. "First is geo-blocking and whether consumers should be able to access the same content regardless of where they are in the EU," he says.

"Second is whether the hosting ex-

MAIN CHANGES TO THE INTELLECTUAL PROPERTY ACT, OCTOBER 2014

DESIGN OWNERSHIP

The owner of a commissioned design will now be the designer and not the commissioner unless a contract states otherwise

PRIOR USE OF A DESIGN

Where someone uses a design in good faith that is subsequently registered by another person, there will be some protection from infringement action

COPYING

The intentional copying of a registered design is now a criminal offence

OTHER CHANGES

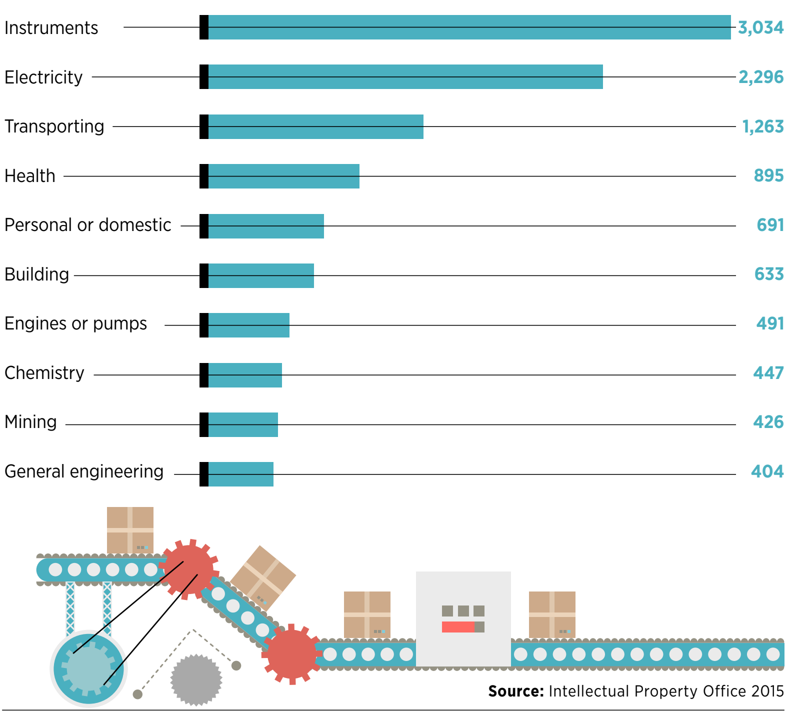
Simplifying who is able to qualify for an unregistered design right in the UK and restricting the ability to base a claim for copying on a cropped area of an unregistered design (a "part of a part")

FUTURE CHANGES

The creation of an impartial, non-binding opinions service and extending the Hague international design registration system

Source: Intellectual Property Office 2015

TOP 10 INDUSTRIES APPLYING FOR UK PATENTS IN 2014



Source: Intellectual Property Office 2015

ception, relied upon by some service providers to limit their liability for copyright content made available over their services, should be rebalanced in favour of the content owners. The European Commission is under strong pressure to make a change, but if it does so it will inevitably be accused in some quarters of stifling the growth of digital services.”

Mr Owen believes technology may resolve the geo-blocking problem before law-makers address the issue.

Sometimes, it’s simply the infrastructure which is the Achilles’ heel. Mark Pearce, head of IP at Bond Dickinson, says: “If anything, the position with regard to predatory patenting is getting worse not better. The lack of investment in enough properly qualified examiners and the pressure on existing examiners to process applications means it is very difficult for them to examine properly all applications filed.

“Businesses with deep pockets and aggressive intellectual property strategies can file patent applications which, properly examined, would not be granted, but by persisting with these applications they obtain patents.”

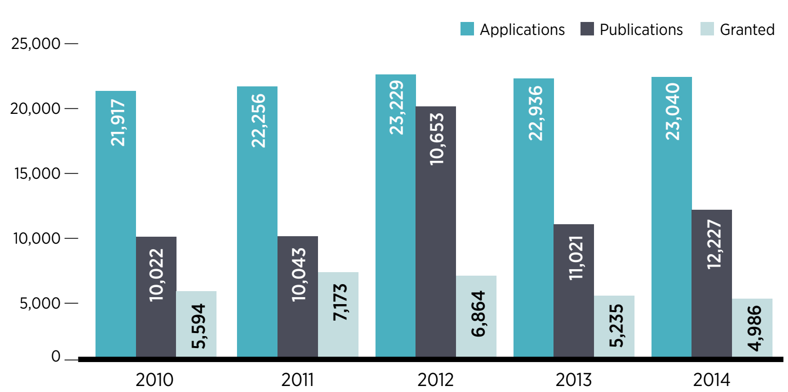
So what does this add up to? A revolution? Probably not. The profession is used to hearing quibbles and is good at rebutting the most vigorous objections. For example, Kevin Cordina, partner at law firm Olswang, nails the cost issue. “The expense of registering a patent is a common complaint. James Dyson says he nearly bankrupted himself registering them. But he’s made millions from those patents. You are asking for a 20-year monopoly, the value is huge. So, of course, it’s going to be expensive.”

Even glitches get ironed out. As Mr Cordina points out, Apple lost its infamous “slide to unlock” patent in Germany recently. And the Pirate Party? “It’s easy to make popular statements, with excited promises. But I don’t think the party is taken seriously,” he says.

> “Businesses with deep pockets and aggressive strategies can file patent applications which, properly examined, would not be granted, but by persisting they obtain patents

Is there room for improvement in the framing of patent and copyright laws? Few doubt it. Indeed work is under way on a number of fronts. But to extend those issues to a wholesale critique of the system is another thing altogether. Unless the Pirate Party starts polling some serious numbers in the European elections, we are surely free from a wholesale rethink. The conclusion that the system – flaws and all – delivers mostly what entrepreneurs and society needs, is still the majority view.

UK PATENT APPLICATIONS FILED AND PUBLISHED, AND PATENTS GRANTED



Source: Intellectual Property Office 2015

Intellectual property officer t

With varying degrees of take-up, boards are beginning to appoint a director with specific responsibility for intellectual property

◆ BOARDROOM

● JONATHAN AMES

There's a new kid in the boardroom – a character sporting a pair of clever-clog spectacles and a monster-sized brain.

The newbie has muscled into a space at the big table between the chief financial and chief technical officers. This new role is the chief intellectual property officer (CIPO) – and some are suggesting that before long, no board will be complete without one.

CIPOs are not always given that label; some have rather more elaborate titles, such as heads of intellectual asset and innovation partnership management. But the reason they are cropping up in various forms at large corporations is twofold: an ever-increasing importance of intangible intellectual property (IP) assets to bottom lines; and a hitherto woeful lack of IP knowledge among top executives.

Brian Hinman is a perfect example. At Amsterdam-based global conglomerate Philips, he even travels under the straightforward description of CIPO.

Mr Hinman claims his business has been at the forefront not only of IP innovation, but likewise it has led global boardrooms in recognising the vital role of this intangible asset.

His post was created 20 years ago, the result, he says, "of the recognition by the C-suite in Philips of the extreme importance of its IP portfolio and strategy, and the need to have a seasoned business executive to establish, guide and implement this strategy".

He explains: "At Philips, IP is a separate business with a separate profit and loss responsibility, which is taken very seriously by every business group within Philips."

All well and good, but is Philips alone in that recognition? Mr Hinman says large counterparts are following suit, "but with inconsistent views on the overall responsibility that each CIPO has".

The Philips man is also critical of the approach of many businesses, which continue to view IP as a befuddling and complicated issue, seemingly suitable only for esoteric minds in legal departments. "[That] is not the appropriate home for it," he argues. "A company needs to define what strategy it would like to employ with respect to IP – offensive or defensive licensing, enforcement, exclusivity, or a combination of any or all of those – and then build a business organisation that is equipped to handle that strategy."

Others in the IP world are far less diplomatic about what they see as dangerous boardroom ignorance. "It is surprising how uninformed people are," says Neil Nachshen, a partner at London-based trade mark and patent attorneys D. Young & Co, before acknowledging that boardroom awareness of IP issues varies among corporate sectors.

WHAT IS INTELLECTUAL PROPERTY (IP)?

TYPES OF IP

- Names of products or brands
- Inventions, design or look of products
- Things written, made or produced

YOU OWN IP IF YOU

- Created it
- Bought IP rights from creator or previous owner
- Have a brand that could be a trademark, for example a well-known product name

PROTECTING YOUR IP

AUTOMATIC PROTECTION

- Copyright (writing/literary works, art, photography, films, TV, music, web content, sound recordings)
- Design right (shapes of objects)

PROTECTION YOU HAVE TO APPLY FOR

- Trade marks – four months for application
- Registered designs – one month for application
- Patents – around five years for application

Source: Intellectual Property Office

IP ENVIRONMENT BY SECTOR

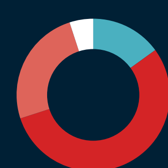
Patents | Brands | Hot topics | Copyright | Secrets

INTELLECTUAL PROPERTY BREAKDOWN

VALUE ATTRIBUTED TO INTANGIBLE ASSETS DURING A CORPORATE TAKEOVER

INTERNET AND E-COMMERCE

▷ Disintermediation and the growth of marketmakers such as Alibaba and Amazon market place



34.8%

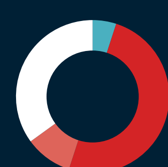
LIFE SCIENCES AND HEALTHCARE

▷ Big pharma is dependent on blockbuster drugs, but patent lifetimes are sometimes insufficient to recover R&D costs; generics hold the opposite view

45.1%

FINANCIAL SERVICES

▷ High street banking is increasingly technology driven, but regulation is not keeping up



22.5%

TELECOMMUNICATIONS

▷ "Patent wars" and the balance between innovators and imitators; tension in the development of 5G standards

29.3%

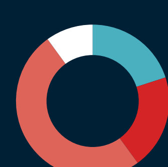
AUTOMOTIVE

▷ Cars are less about mechanical engineering and more about technology (batteries, fuel cells, location services)

23.1%

SOFTWARE

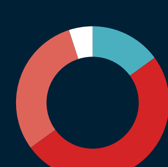
▷ Adoption of new business models and cloud computing challenge traditional software vendors



23.8%

LOGISTICS

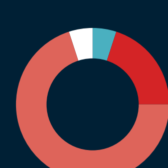
▷ Market disruptors challenge the economics - Airbnb doesn't own hotels and Uber doesn't own cars



30%

MEDIA AND ENTERTAINMENT

▷ Streaming and ubiquitous digital content change the economics and incentives for unauthorised copying



43.5%

Source: Aistemos 2015 **Source:** KPMG

IP APPLICATION BREAKDOWN BY REGION, 2014

Number of applications | Share of world total

TOP 10 PATENT CO-OPERATION TREATY PATENT APPLICATIONS

UNITED STATES

61,492

28.7%

JAPAN

42,459

19.8%

CHINA

25,53

11.9

FRANCE

8,319

3.9%

UNITED KINGDOM

5,282

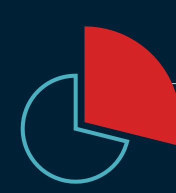
2.5%

NETHERLA

4,21

2.0

VALUE OF IP



29% higher revenue per employee from companies that own intellectual property rights (IPRs)

35% of all employment in the EU (77 million jobs) stems from industries that have a higher-than-average use of IPRs

40% of total economic activity in the EU (€4.7 trillion annually) is generated by IPR-intensive industries

Source: Office for Harmonisation in the Internal Market 2015

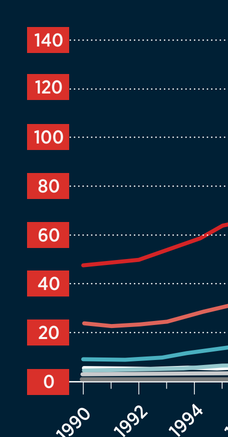
TOTAL INVESTME

Total investment in inta

Total investment in IP r

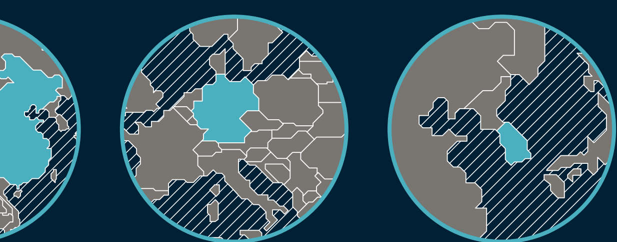
Investment in copyrigh artistic originals and so

Investment in tradema advertising and market



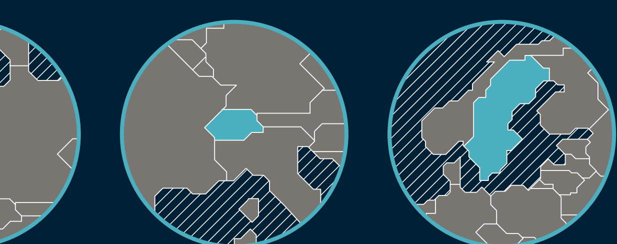
takes a seat on the board

, as companies increasingly realise the value of their IP



9
%

GERMANY	REPUBLIC OF KOREA
18,008	13,151
8.4%	6.1%



NDS
3
%

SWITZERLAND	SWEDEN
4,115	3,925
1.9%	1.8%

TOP 5 MADRID TRADEMARK APPLICATIONS

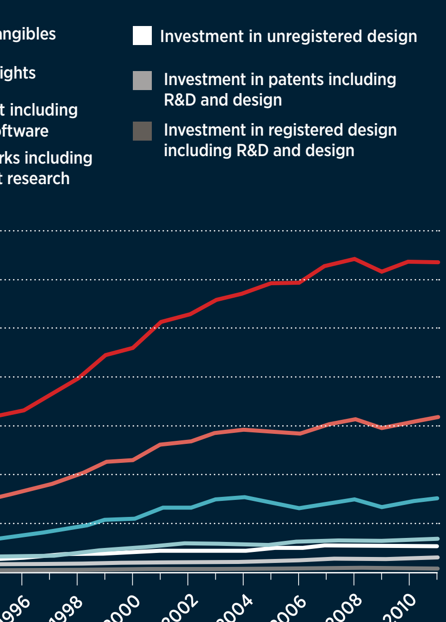
UNITED STATES	6,595	13.8%
GERMANY	6,506	13.6%
FRANCE	3,802	7.9%
SWITZERLAND	3,144	6.6%
UNITED KINGDOM	2,946	6.2%

TOP 5 HAGUE DESIGN APPLICATIONS

GERMANY	3,686	26.8%
SWITZERLAND	3,189	22.1%
FRANCE	1,559	10.8%
ITALY	960	6.3%
UNITED STATES	765	5.3%

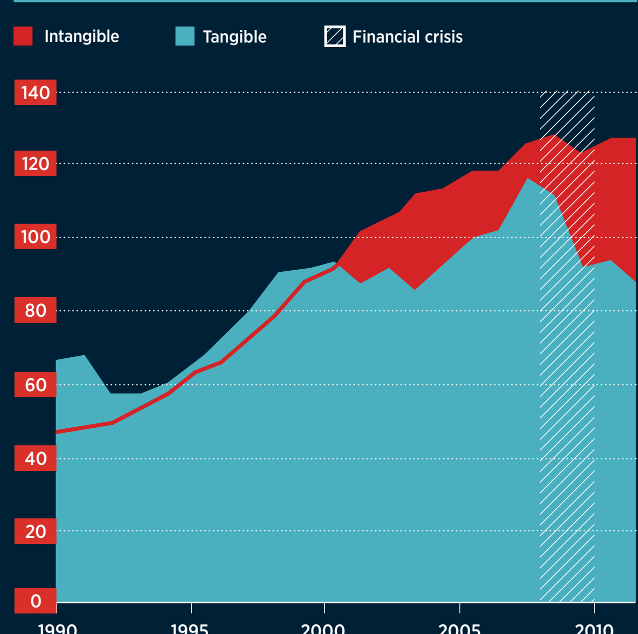
Source: World Intellectual Property Organization 2014

NT IN ASSETS BY IP COVERAGE (£BN)



Source: Intellectual Property Office 2014

UK ASSET INVESTMENT (£BN)



Source: ONS, Intellectual Property Office 2014

For example, those sitting around the big table at a global pharmaceutical business will all be aware of impending patent expiration issues. But, claims Mr Nachshen, even in the software and electronics sectors, awareness levels drop dramatically.

"The position is improving," he says, "but there is still not a full appreciation of the value of IP to their companies – how the whole IP portfolio can be managed and leveraged to create business. There also seems to be a low awareness about the patents you can get for software-related inventions."

Morag Macdonald, joint head of the international IP group at London law firm Bird & Bird, is equally critical. "IP is absolutely essential in areas such as online retail and mobile banking," she says. "Trade marks underlie the online branding of apps. Yet the understanding of IP and how it affects these areas of business is extremely patchy at board level.

"And that is very dangerous. A board would be uncomfortable not understanding the way the rest of its asset flow is going. So I cannot understand how they can be happy not understanding their intangible assets in the same way they understand their tangible assets."

According to these specialists, a core problem is that some boards are not encouraging their in-house legal teams to provide training and strategic insight to IP issues. In a hectic corporate world, doing so just falls fairly low on the agenda.

> A core problem is that some boards are not encouraging their in-house legal teams to provide training and strategic insight to IP issues

Therefore, in many cases, the first time a board becomes aware of its business's intangible assets is when a problem arises, either because a competitor business is infringing their rights or enforcing intangible asset rights against them. By that time, it is far too late to have a crash course in IP basics and the only option is to instruct litigation lawyers.

Matthew Pryke, an IP specialist partner at London West End law firm Hamlins, summarises bluntly: "Chief executives are a distance away from truly understanding the value of IP for long-term business growth. Too often executives view IP in terms of costs and legal compliance."

But other leaders in the IP field take a slightly more positive view of the evolution of boardroom knowledge. Nigel Swycher, chief executive of IP consultancy Aistemos, says: "With increasing frequency, IP has entered the boardroom and directors are recognising now that the bulk of their business's asset value is associated with areas that are less easy to put a finger on. And those areas are getting closer attention."

According to Mr Swycher, the key ingredient for chief executives and their directors is more and better information. "Boardrooms are screaming for data in this area," he says. "They are screaming for more aggregation of data and more competitive intelligence. And as that water level rises, everyone is trying to be more helpful so the chief executive can make the best decisions. Executives need to focus on what matters – and IP now matters."

So just what are the hammers and spanners that boardrooms need to ensure are in a business's IP strategy tool kit?

The starting point, says Kenneth Mullin, partner head of IP at London law firm Withers, is "senior management buy-in". That includes a process in which the top team assesses the intangible assets its business is sitting on.

"Sometimes businesses don't recognise their own IP," says Mr Mullin, "perhaps because they've never thought about it. And sometimes it goes the other way – people over-estimate the value of their intangible assets."

Part of that nuts-and-bolts exercise involves recognising obvious IP, such as registered trade marks and patents, as well as assessing more ethereal parts of the business, for example, know-how and goodwill.

Executives need to ensure their businesses have sufficient protection in place, namely legal documentation of intangible assets created by employees or contractors. They must guarantee those rights are passed on to the wider business.

Likewise, businesses must register rights in all countries and jurisdictions where they are operating. And crucially, rights must be policed and enforced. Mr Mullins explains: "In some jurisdictions you can lose rights if you don't enforce them properly."

Bird & Bird's Ms Macdonald adds that a vital task for boards is to conduct an IP audit so businesses know exactly what they have in the bank.

"Many companies think it is just what they have registered, but that might not be the case," she says. "They might not have the right things registered. And often companies only do this when they are going through an acquisition or a sale during due diligence."

All in all, it's enough to keep those new kids on the board extremely busy. Mr Hinman, CIPO at Philips, concludes: "Without a strong IP portfolio and strategy, a company is left naked with respect of being able to confront the challenges it will face in implementing its overall corporate strategy."

Crackdown on counterfeits

Safeguarding brands and trade marks in developing markets poses a problem where regulation may be haphazard and counterfeiters rife, damaging product quality and company profits

◆ **GLOBALISATION**

● **CATHERINE BAKSI**

A fake Rolex watch or imitation Louis Vuitton handbag are the souvenirs of choice bagged by many tourists and backpackers to bring home from their Eastern travels. But counterfeiting is more than holiday retail therapy – it is big business and has a deep economic impact.

The International Chamber of Commerce predicts the global value of counterfeit and pirated goods could this year reach $1.77 trillion (£1.16 trillion) and put 2.5 million legitimate jobs at risk. While a study from the Office for Harmonisation in the Internal Market (OHIM) shows that in the European Union alone counterfeiting causes lost revenues of more than €26 billion (£19.18 billion), nearly 10 per cent of total sales in the sector, and the loss of up to 363,000 jobs.

China is the biggest hot spot. The OHIM report confirmed it as the source country of over two-thirds of counterfeit goods circulating in the EU. The prevalence of counterfeiting in developing markets poses challenges to companies looking to move into these markets and protect their IP rights.

But, says Ben Allgrove, IP partner at global law firm Baker & McKenzie, the situation is improving as rights holders in emerging markets gain an appreciation of the importance of IP protection and enforcement.

China is making increasing attempts to tackle counterfeit goods production. In 2014 its administrative authorities handled 67,500 trade mark infringement cases with a value of 100 million renminbi (£10.3 million), destroyed 1,007 infringing sites and transferred 355 criminal cases to the prosecutors. And the Trademark Office, and Trademark Review and Adjudication Board together decided 2,800 cases against bad faith trade mark filings.

A new trade mark law, which came into force in May 2014, introduced more severe punishments for repeated infringements and raised the amount of statutory damages from 500,000 renminbi (£51,501) to 3 million (£300,000).

China's increased commitment to tackling the problem was also shown in a landmark test case in 2005 that held landlords and vendors in markets selling counterfeit products jointly liable to pay compensation for losses and enforcement costs.

Earlier this year, Chinese e-commerce giant Alibaba, which is facing legal action over allegations it has turned a blind eye to the sale of fake goods on its websites, ramped up protection for foreign brands.

While strenuously denying it has allowed the sale of knock-off goods on its sites, it launched an English language version of its online system for reporting IP infringements.

The growth of the internet and e-commerce has increased the challenge for rights holders to protect and keep control of their brands, making a strategic approach crucial.

Luke Minford, chief executive of global IP firm Rouse, advises companies to consider carefully whether they can afford to enter emerging markets and suggests holding off until they have the budget to do so.

Unlike the UK, most such countries have a civil, rather than a common law, system and IP rights must be registered.

And, Mr Minford cautions, registration should include not just the brand, logo, shape, design and colour, but the name in the local language.

Failure to do this led US coffee chain Starbucks into a two-year legal battle with Chinese firm Xingbake, which infringed its rights, adopting a Chinese name and logo.

Companies have been set up to monitor new and interesting brands, registering them in anticipation that they will seek to enter a new market and then try to sell back the brand to the original rights holder. The going rate, says Mr Minford, is $500,000 (£327,300).

Following registration, a robust monitoring and enforcement regime is required. While the challenge may appear immense, there are choke points where you can act effectively, says Mr Allgrove.

> The growth of the internet and e-commerce has increased the challenge for rights holders to protect and keep control of their brands

"If you can find the source factory in China producing the knock-off phones or tablets, that is ideal, but this is rare," he says, suggesting an alternative strategy of "looking at landlords, payment providers, transit companies, online platforms and other intermediaries to see whether they can assist in stemming the flow".

More prosaically, Mr Allgrove suggests having in place recordals – entries in the OHIM Register – with customs authorities, enabling them to spot and seize suspicious goods in transit. "The real value in this is the intelligence you gain about what is moving and from where to where. That intelligence can then be built into more targeted action," he says. "It is about staying ahead of the game and deploying resources where they will have the most impact."

And enforcement mechanisms are surprisingly good and cost effective in markets such as Russia and China, notes Mr Minford. "So be proactive when problems arise. If you are going to invest in emerging markets, be prepared to use enforcement mechanisms," he says.

"IP enforcement done incorrectly can be a game of whack-a-mole – you hit one infringer and another pops up somewhere else," says Mr Allgrove. "The reality is that infringers will always be more agile than large multinationals and the law."

IP laws are national in character and, as David Rose, partner and head of IP at Asian-headquartered King & Wood Mallesons, notes: "It is an unfair battle. Counterfeiters have a global footprint via the internet while rights owners have a fragmented IP landscape. We are not going to see global trade mark or design rights any time soon."

However, a Unified Patent Court regime may become a reality in Europe, allowing companies to apply for a patent covering every EU member state and enforce it.

Rebecca Baines, Mr Minford's partner colleague at Rouse, says: "It is the biggest change in over 40 years and will be a revolution in European patenting."

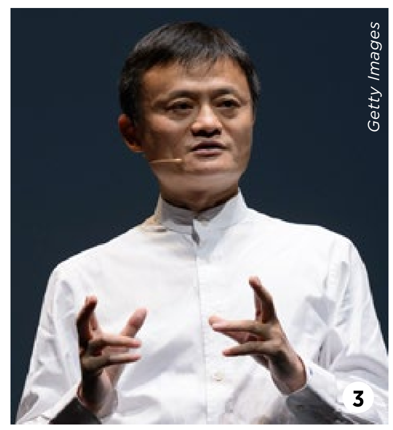
It will, she says, have global significance, removing Europe's competitive disadvantage with other major territories, such as the United States, China and Russia.

Designed to be more cost effective, companies will get coverage across Europe for what it would now cost in only the top four EU countries, Ms Baines adds.

But there is a sting in the tail. Mark Ridgway, IP partner at law firm Allen & Overy, notes: "There will be a risk for companies whose patents are subject to the court. If the decision doesn't go their way, they will lose rights for the whole of Europe. That is a frightening prospect and many businesses will choose to exercise the opt-out for the time being."

Doubts remain over the starting date, which is not likely to be before 2017, as well as the procedure, and concerns have been raised over whether the judges can be trained to a sufficiently high standard in time.

But, as Mr Rose points out, the UK referendum on its continued membership of the EU could throw things up in the air as Britain is one of the three mandatory ratifiers of the new process. Its creation, though keenly anticipated, is far from inevitable and a fragmented approach may remain for a while yet.

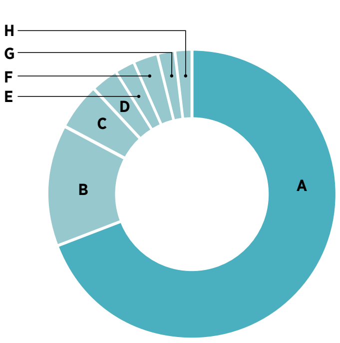


1. Pirated DVDs on sale in 2007 from a street stall in Shanghai

2. Workers destroying counterfeit mobile phone accessories in Shenzhen in 2005 as part of a nationwide campaign to crack down on IP rights infringements

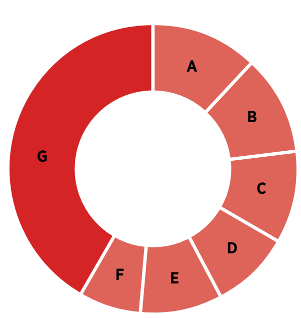
3. Jack Ma, chairman of Alibaba, has been vocal in the fight against fake goods; between 2013 and 2014, his company spent more than $160 million tackling the sale of counterfeit goods on its sites

ORIGIN OF COUNTERFEIT GOODS FOUND IN THE EU, 2013



A	China	66.1%
B	Hong Kong	13.3%
C	Greece	5.8%
D	Turkey	3.7%
E	United Arab Emirates	2.5%
F	Ghana	2%
G	India	1.8%
H	All other countries	5.30%

TOP CATEGORIES OF COUNTERFEIT GOODS FOUND IN THE EU, 2013



A	Clothing	12.3%
B	Other goods	11.1%
C	Medicines	10.1%
D	Cigarettes	9%
E	Packaging material	8.8%
F	Toys	7.6%
G	All other categories	41%

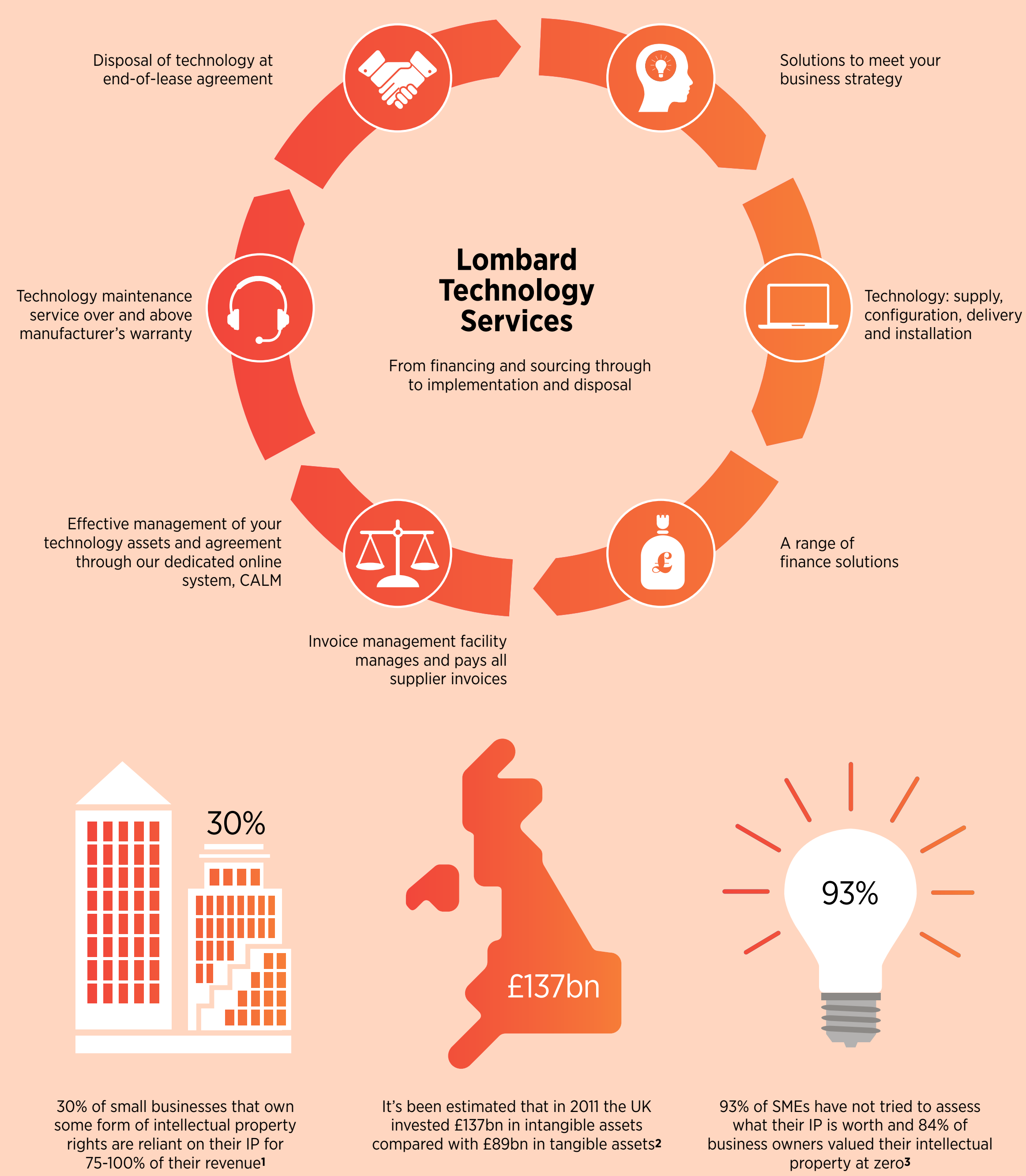
Source: European Commission 2014

COMMERCIAL FEATURE

RELEASE CASH WHEN YOUR BUSINESS NEEDS IT

*Innovation from **Lombard** is unlocking the value of software intellectual property, says **Keith Nowland**, regional sales director at Lombard Technology Services*

Lombard



Source 1: Federation of Small Businesses (FSB) survey of 1,080 FSB members, October 2014
Source 2: *Estimating UK Investment in Intangible Assets and Intellectual Property Rights*, Intellectual Property Office (IPO), March 2014
Source 3: *Banking on IP? The Role of Intellectual Property and Intangible Assets in Facilitating Business Finance*, IPO, November 2013

Despite the importance of digital technology to the 21st-century economy, businesses struggle to borrow against software intellectual property (IP) assets. But innovation from Lombard in the asset finance market means companies can now unlock capital invested in their IP.

Asset finance has been with us since the heyday of the Industrial Revolution when the fast-growth companies of the day borrowed against their equipment to fund further expansion. Today, it plays an important role in helping businesses raise cash when they need it, allowing them to acquire new assets to become more efficient, increase production, stay ahead of the competition and, ultimately, boost profits.

Lombard has been at the forefront of the market for more than 150 years, although the nature of asset finance has inevitably changed in that time and continues to do so. This means that Lombard is continually focused on innovating and developing new solutions to meet customers' needs, something that has been driven partly by the advent of the digital age and the different assets that can now be funded.

Traditionally, assets were seen as tangibles such as plant, machinery and vehicles. Wind the clock back 30 years and a manufacturer would have been mainly spending on the production line. Today, the machinery may still be running, yet the operation will be underpinned by sophisticated software systems that not only run the manufacturing process itself, but also the procurement and distribution operations.

It's this type of software – and the IP associated with it – that UK businesses are investing in heavily. These intangible assets have a value suitable for use as financial collateral, which has been the focus of our technology division, Lombard Technology Services, in developing a finance product that can be applied to IP.

According to a survey carried out by the Intellectual Property Office (IPO), British companies invested £137 billion on intangible assets in 2011, compared to £89 billion on tangibles, with around £24 billion of that earmarked for software. That's a significant amount of funding which businesses could unlock through asset finance.

The general principles of asset finance have not been widely practised in respect of software IP. As Martin Brassell, chief executive at Inngot and co-author of *Banking on IP*, a report that examines the issues, says: "Conventional asset finance is mainly concerned with helping companies finance the buying of new plant and machinery, equipment or property. Such equipment often includes something IP-related, such as branding that contributes to value or software to make it work, but the intangible elements *per se* are seldom considered."

> "It's much easier to do if the IP has already been licensed and you can see the revenue, the income and what the market or potential market is...
> *Michael Ellis, IP consultant at Ellis IP*

This is where Lombard Technology Services has stepped in. With an existing specialism in lending against IT and technology assets, and a strong track record in this complex market, Lombard Technology Services has been well placed to develop an innovative way of filling the gap. Experience of providing businesses of all sizes and across all sectors with different technology assets has given it the knowledge to spot the opportunities presented by software IP. It has therefore developed a new product – Software Licence Solution (SLS).

In doing so, Lombard Technology Services looked to give funding options to companies that own the IP to business-critical software. There have been clear challenges associated with the treatment of software IP as assets in the past. These include the difficulty of giving a value to software IP assets, taking security and, if need be, realising that security. Because of this, banks have been reluctant to accept software IP as collateral for conventional secured loans. Lombard Technology Services have now started to overcome these challenges.

HOW SLS WORKS

Designed to benefit well-established, revenue-generating businesses, SLS is based on a software licensing model. Businesses can borrow against the capital invested in their IP, with the sum repayable over a three-to-five-year term. In return, Lombard Technology Services takes ownership of the software, but licenses back exclusive use to the business, which gives Lombard Technology Services security against the loan while freeing up cash which the borrower can reinvest. At the end of the agreement, the borrower can either continue using the rights through an ongoing annual licence fee, at a nominal rate, or introduce a third party to buy the IP.

A key issue is effective financial and technical due diligence of the asset to enable Lombard Technology Services to attribute a value to the IP using a mixture of revenue, research and development expenditure, and market assessments. Essentially, they can fund IP on business-critical software that's not only essential to the running of a company, but which also has a clear value to the business. To qualify, the IP should be developed in-house, including development outsourced to a third party, under the full ownership of the borrower and either licensed to their customers or underpinned to services they provide.

> "It's great to work with a company like LTS that really get the tech space and have been bold enough to develop this genuinely unique product – that's a rare thing in banking...
> *Neil Bellamy, head of technology, media and telecommunications, and services at Royal Bank of Scotland*

CASH OPPORTUNITY

It's a solution that gives companies an opportunity to raise cash when they need it. That cash might be used to further develop IP or to expand operations. This has long been the role of asset finance, with lenders providing growth capital, which invariably involves a certain amount of risk, while assuming rights over the assets. And as the software IP market develops, companies will increasingly be able to fund growth by using their digital assets.

In this technological age, software not only underpins a whole range of business operations, it plays a vital role in cash generation. In this current environment, it is essential that businesses can draw on the value of both tangible assets and their business-critical IP. That's a challenge for the finance industry. It's a challenge that Lombard Technology Services has begun to meet and in the coming years we are certain to see further innovation in the marketplace.

Security may be required and product fees may apply.

To find out more contact Keith Nowland, regional sales director, Lombard Technology Services knowland@Lombardts.com or visit www.lombard.co.uk/technology

Don't leave the chicken coop open for the cyber-foxes

Theft of valuable intellectual property by cyber criminals can bring a company to its knees, so a robust defence strategy is essential to remain standing

◆ **DATA THEFT**

● **NIC FILDES**

The world is awash with data theft. The line-up of brands – Sony, Target, Ashley Madison, Carphone Warehouse – that have been hit by hackers increases every day, while protecting customer details in the era of cloud computing, when more data is being held digitally, is now a board-level issue.

Yet the impact of the theft of customer data arguably pales in comparison compared with the potentially devastating hit a company can take if its own secrets are stolen. All data may be valuable, including customers' personal details, but it is a company's intellectual property (IP) that represents cyber criminals' big pay day.

The loss of IP can have a devastating effect on a business beyond brand reputation. Forrester Research uses the example of Codan, a little-known Australian metal detection company, that suffered a data breach in 2014 and found its designs were stolen. A flood of similar devices hit the market in no time and Codan was forced to slash its prices as a result. Net profit slumped that year to A$9.2 million from A$45 million a year earlier before the breach happened.

> Companies need to prepare for a Doomsday scenario – at the very least to ensure that, if and when a breach of its fundamental IP occurs, a strategy is in place

The impact can be even worse in that it can put a company out of business altogether. Nortel Networks was one of the world's biggest telecoms equipment companies at the turn of the century. Yet one of Nasdaq's highest fliers was not immune to IP theft and has been retrospectively accused of failing to spot a breach for four years, during which time its systems were constantly monitored. It then failed to act effectively when it discovered the breach and within six years Nortel had collapsed altogether.

Although the entire sector was hit by price competition, Nortel in particular seemed to suffer from the rise of Chinese companies that had rapidly acquired technological know-how. Failing to protect its IP may have proved terminal for the business.

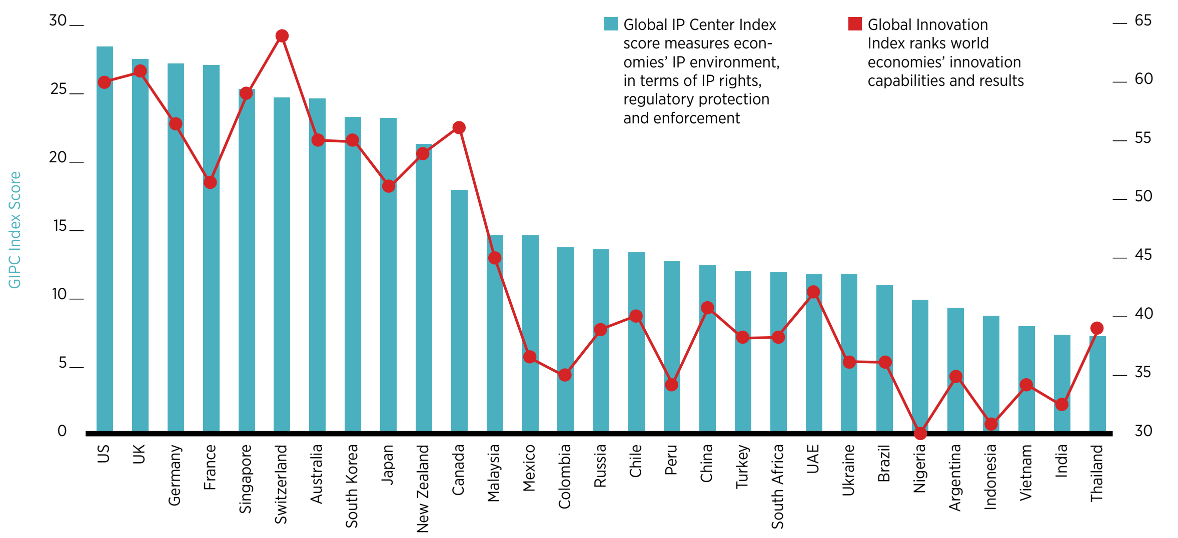
There is, of course, nothing new about IP theft with traditional threats coming from both within – an employee with a grudge trying to steal and sell information – and without – in the form of corporate rivals. The threats have grown exponentially in the world of global connectivity and unsecure corporate networks where an infected USB stick or even a weak firewall at a trusted partner, such as a law firm, can leave the chicken coop gate wide open for the cyber-foxes.

Heidi Shey, an analyst at Forrester, says IP theft is now the "jackpot of corporate espionage" with BlackOps Partners, a counter-intelligence company, estimating that it costs US companies $500 billion a year.

Just as the world becomes accustomed

ASSOCIATION BETWEEN IP PROTECTION AND INNOVATIVE OUTPUT

COUNTRIES WITH STRONGER IP PROTECTION ARE GENERALLY RANKED HIGHER IN TERMS OF INNOVATION



Source: Global IP Center 2015/World Intellectual Property Organization/INSEAD/Cornell 2014

to "malware-as-a-service", the value of IP theft has spawned an industry Forrester calls "espionage-as-a-service". These are effectively IP bounty hunters, who offer a range of services priced between $1,000 and $10,000, looking to target companies in fields such as telecoms, financial services, defence, law and IT. "If not contracted to steal this data, these groups will sell stolen intellectual property to the highest bidder," says Ms Shey.

Simon Crosby, chief technology officer and co-founder of Bromium, says the relatively low cost of attempting IP theft is very appealing to cyber criminals. He says the data under threat falls into two distinct categories, "competitive differentiation and fundamental IP". The first category includes tenders, contracts and any data valuable to a company's rivals.

A Bromium customer, who designs and builds power plants, reported a huge increase in targeted attacks in the days prior to submitting a bid, says Mr Crosby. Losing a bid is bad, but there is even more at stake for those failing to protect fundamental IP, which can include formulas for compounds, product designs or core technology. Such information is so valuable that it is national governments that are often indirectly behind attempts to steal it.

The main threat comes from so-called advanced persistent threats, which are targeted attempts to get at a specific set of information. They can infiltrate a network and use backdoors to copy it, while avoiding detection. In such cases, by the time the threat is detected, the data has gone and it's too late. "Once an organisation's IP is out, it's out," says Forrester's Ms Shey.

As is often the case with cyber security, it is the more basic techniques that can work. Jacob Ginsberg, a senior director at Echoworx, says any data held in an unsecure manner is at risk given its value, but companies often spend too much resource on expensive solutions which bring confidence that a network is secure.

"There's no need for criminals to hack a complex security system anymore when users make it so easy to access their data," says Mr Ginsberg. "Ninety per cent of attacks come as a result of human error, usually from an employee. E-mail security is often overlooked in favour of network firewalls or file server security and 'spear phishing' has become more frequent as a result."

Some companies may have to prepare for the vulnerabilities posed by careless workers, but for others, the internal threat is more pronounced. David Gibson, vice president of strategy and market development at Varonis, says: "It's often insiders who go after sensitive data – trade secrets, strategic plans, proprietary software, key customer accounts, legal documents – not just the outside attackers that get inside. After all, employees – often the ones who have worked on the IP itself – know where the files are located and, more significantly, the IP's true value.

"Unlike locked file cabinets from yesteryear, we've not been careful about access permissions – too many users can find the IP and transfer it to their thumb drives, print it out or e-mail it."

Companies need to prepare for a Doomsday scenario – at the very least to ensure that, if and when a breach of its fundamental IP occurs, a strategy is in place. Ms Shey recommends testing and refining an "incident response" plan as a critical move for any organisation.

> "A few systems need to be re-imagined from scratch, using trusted media"

Others have confidence that there are technological solutions. Andy Heather, vice president, Europe, Middle East and Africa, with HP Security Voltage, says the advent of a new format preserving encryption standard has greatly simplified the process of protecting data throughout its life cycle.

Mr Gibson of Varonis says user-behaviour analytics and unstructured data protection techniques have improved to the point where unusual file patterns can be spotted early to prevent IP theft.

Some, however, believe more drastic measures need to be taken, particularly to protect fundamental IP. Bromium's Mr Crosby argues that a system of "micro-virtualisation", which enables machines to be designed to protect themselves in the case of a compromised system, could prove an adequate defence. "A few systems need to be re-imagined from scratch, using trusted media. These systems need to be protected by design from any malware in the intranet and infrastructure," he says.

Tony Berning, a senior product manager at software specialists OPSWAT, says isolating critical and classified networks, and creating multiple layers of cyber security, can be effective, but contends that using data diodes as one-way gateways brings peace of mind. "No data can leave, effectively preventing any intellectual property loss," he concludes.

35%
of all cases of IP theft occur in the information technology sector

13%
in banking and finance

21%
of IP theft from a company is by former employees

17%
is by trusted business partners

Source: Thrive IP

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COMMERCIAL FEATURE

PROTECTING UK INNOVATION

UK businesses are among the most innovative in the world, and small and medium-sized enterprises account for 99 per cent of them

Dr Philip Martin
Patent attorney

Simon Portman
Commercial IP lawyer

Intangible assets, such as intellectual property (IP) rights in patents, trade marks and copyright have become as, if not more, valuable to companies than their physical assets. But many small and medium-sized enterprises (SMEs) wrongly assume that IP management is the preserve of big pharmaceutical corporations and other giant multinationals.

Most technology SMEs, as well as their investors, are probably looking for an exit strategy from day one. So it is vital they consider the importance of protecting and managing their innovation as early as possible, and crucial that IP advice forms an intrinsic part of an SME's business model, supporting their commercial aims.

HOW TO PROTECT YOUR IP

First of all, identify your unique product or service differentiators. Consider carefully what to protect, when and how best to do it, being aware that even if the technology looks good and is patentable, it may not be cost effective to do so.

Assess how your innovations contribute to your commercial goals. You want to protect innovations that are both commercially valuable and highly innovative. Your budget will dictate what you choose to do, but ensure your core concepts or crown jewels are protected.

Check that no other company already holds IP rights over the innovation by carrying out a "freedom to operate" analysis and checking relevant databases.

Then register your IP, remembering that IP rights are territorial. So if you have registered protection in the UK, it only applies here.

If you can, build a strong IP portfolio as this is a far more compelling proposition for investors. But keep it under review and prune it from time to time, ditching patents for earlier unused technology that no longer adds value, though it might be wise to hold on to a US patent.

WHERE TO REGISTER?

A common mistake is to file patents in too large a number of countries. Only apply in limited jurisdictions and ask yourself, for example, "Do you really need a patent in Vietnam or Greece?"

For tech inventions you can cover most of the economic world by filing in the US and Europe, and these days China.

If the main aim is an exit, it is a fact of life that a US patent may be all you need. Similarly, for tech companies, a US patent can provide a licence position; that is to say it can get you a place at a table from which you might otherwise be excluded.

Of course, it also gives you a weapon to use if your rights are infringed. However, the US is a slow and expensive jurisdiction in which to take action.

By contrast, the UK has one of the most effective and efficient patent court systems in the world. Because of this it would be a big mistake for a company to ignore patent protection in the UK/EU as a critical part of their strategy.

LICENSING

A key method of exploiting protected IP is to license it for use by others. Your company retains the rights to the IP and it can issue licences to other companies in return for royalties. Consider whether this might be something for your company. Three main types of licences can be granted – exclusive, non-exclusive or sole licences, usually justifying different levels of royalties.

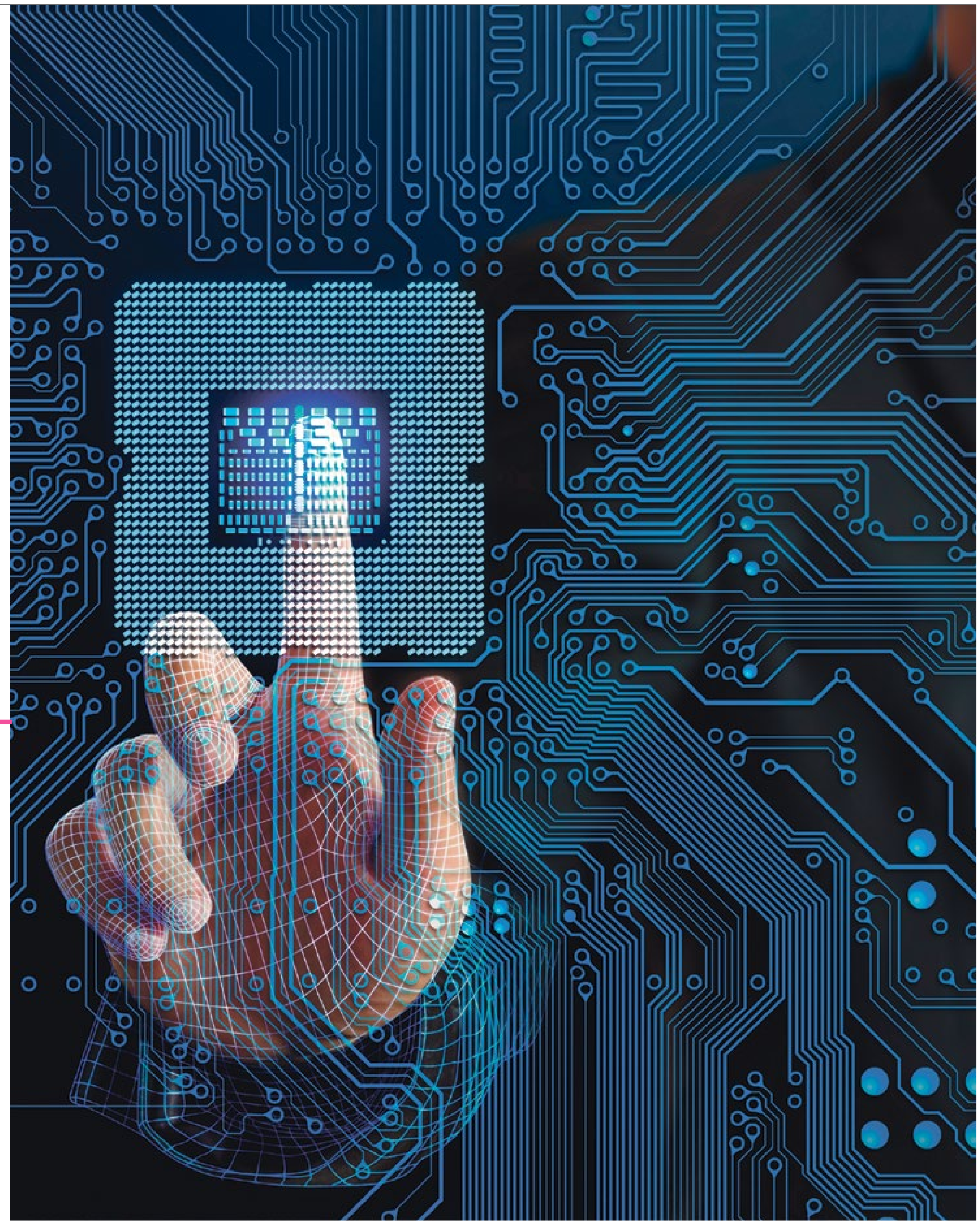


Image credit: Wichy/Shutterstock.com

TAX RELIEF: THE PATENT BOX

The UK government recognises the importance and value of IP rights to the economy. As such it has, since April 2013, put in place tax relief for those with qualifying protected IP rights. The Patent Box is a preferential tax regime that reduces corporation tax to 10 per cent for income from the exploitation of patents.

To benefit your company must make a profit from exploiting patented inventions and must own or exclusively license the patents, and must have undertaken qualifying research and development on them in the UK. This may be the creation or development of the patented invention or a product incorporating the patented invention.

> "Many SMEs wrongly assume that IP management is the preserve of big pharmaceutical corporations and other giant multinationals

Qualifying patents must have been granted by the UK Intellectual Property Office, European Patent Office or certain other countries in the European Economic Area.

Anyone seeking to take advantage of this system should note, however, that it ends in its current form in June 2016, after which it is expected to continue, but in a narrower form.

BUILD THE RIGHT TEAM

Having the right team of people and good management is essential. The know-how in employees' heads can be as valuable as your patent portfolio. Your company should have an entrepreneurial management team and specialist marketing teams, ideally with contacts in large multinationals.

A critical issue is to ensure that if any employees leave, the restrictions in their employment contract mean your company is not exposed to them taking trade secrets, IP, customers and other employees with them. At the same time, onerous restrictions can be challenged in the courts for being unreasonable, so a careful balance must be struck.

MARKS & CLERK

Marks & Clerk is the UK's largest firm of patent and trade mark attorneys. Its sister firm, Marks & Clerk Solicitors, is one of the country's leading IP legal firms. Our specialists advise clients worldwide on all aspects of IP – from protection to commercialisation to litigation – and across all sectors – from electronics and software to mechanical engineering to pharmaceuticals and biotechnology. Founded in Birmingham in 1887 by George Croydon Marks, a colleague of Thomas Edison, and joined later that year by Dugald Clerk, the inventor of the two-stroke engine, Marks & Clerk has its roots in innovation. Internationally, we have 17 offices across North America, Europe and Asia.

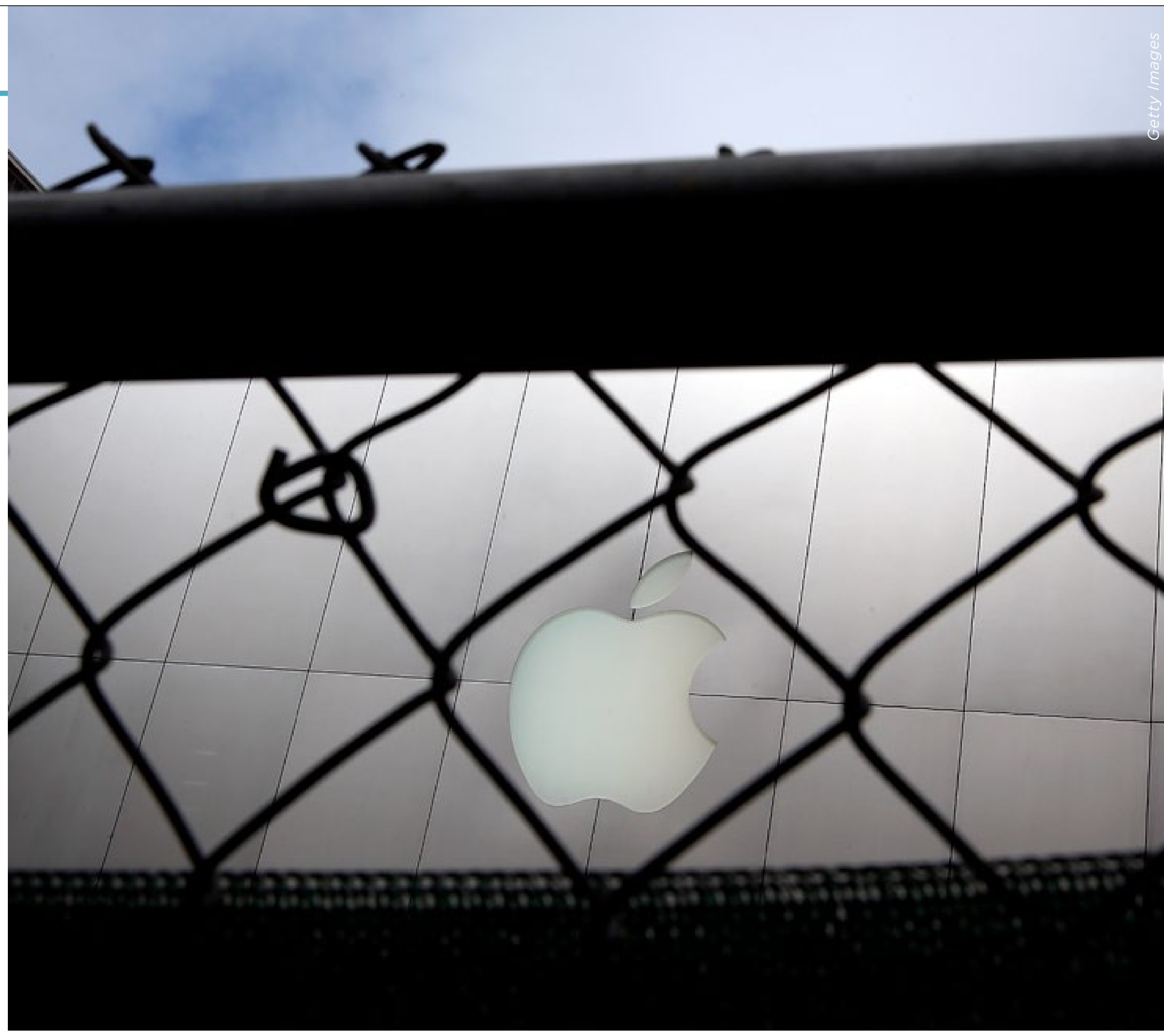
For information about how we can help you, visit our website www.marks-clerk.com

Marks&Clerk

Ensure your core concepts or crown jewels are protected

IP rights provide important leverage at the negotiating table

The UK government recognises the importance and value of IP rights to the economy with initiatives such as the Patent Box



Beware patent trolls

Patent trolling by opportunistic litigants, who acquire patents not to create products but to pursue a pay-off, is a worrying drain on innovation

◆ **PATENT TROLLS**

● **MICHAEL CROSS**

Has your business recently reported a "positive cash shock"? Do you employ only a small in-house legal department, already busy with high-profile litigation? Do your subsidiaries dabble, not necessarily profitably, in a wide range of innovative activities? Congratulations – your company could find itself on a "suckers list" of promising targets for the phenomenon of patent trolling.

That at least is the implication of a groundbreaking comprehensive study of the behaviour of "non-practising entities" engaged in patent litigation in the United States.

Non-practising entities or NPEs – businesses that acquire patent portfolios not to create products, but to pursue pay-offs by threatening litigation – are the most visible example of behaviour likely to be described as trolling. While litigants vigorously contest the label, it entered the formal lexicon of America's highest court earlier this year when Supreme Court justice Antonin Scalia warned that a judgment might increase the power of patent trolls.

Defenders of NPEs say they oil the wheels of innovation by fighting on behalf of individual inventors who would not be able to pursue claims against big corporations. They serve a purpose by "levelling the playing field in the cost of litigation", says Connecticut attorney Stanley Lieberstein.

Forms of patent trolling – aggressively asserting dubious claims in hopes of a payoff – are as old as the legal protection of intellectual property (IP) itself. However, the phenomenon has been fuelled over the past decade by an explosive growth in the number of patent applications filed. In all, between 40 and 90 per cent of patents, depending on jurisdiction and industry, are never used or licensed by their owners.

A large proportion of these are "submarine patents", vague claims left unused until a wealthy corporation seems to be making progress in a similar field, at which point the submarine surfaces in search of licensing fees.

This in turn has caused an explosion in patent litigation in the United States which, according to the Harvard Business School, has grown by an order of magnitude since 2000.

While trolls are not unknown in the UK, this kind of organised activity has not taken off this side of the Atlantic, says Rebecca Halford-Harrison, IP and litigation partner at specialist law firm Kemp Little. She attributes this difference to cultural and practical factors. "We don't see what the US would call troll-like behaviour. It's too risky for the litigant," Ms Halford-Harrison says. "In Northern and Eastern Europe at least, there's not the culture of paying people to go away."

An important factor is the cost in the US of defending even an apparently frivolous claim. "In the States, it's incredibly expensive, so if you can pay someone ten or twenty thousand to go away, it's probably worth it." In the UK, by contrast, an unsuccessful litigant can be hit with a substantial costs bill, which makes speculative and opportunistic litigation less attractive, says Ms Halford-Harrison.

UK companies are more likely to see troll-like behaviour from people who have "a history with the company, not out of the blue". A typical example might be an embittered former employee who feels cheated out of an innovation and secured the support of a non-specialist lawyer working on a "no win, no fee" basis.

An English court will generally strike out such ill-advised claims at an early stage, she says. But despite this, there are fears that the business of patent trolling could take hold in Europe. Ms Halford-Harrison says she has encountered speculative litigators sniffing out the market. "We're having approaches from the US; people saying we're interested in funding litigation, but they seem confused about the jurisdiction," she says.

> There are fears that the business of patent trolling could take hold in Europe, with speculative litigators sniffing out the market

Another potential source of trouble might be Europe's Unified Patent Court, which is due to open next year. While its costs and fees model is still being debated, its wide jurisdiction could encourage a new class of speculative claims.

Recent research from the United States suggests that governments should be worried. The first comprehensive and long-term study of non-practising entities, published by Harvard Business School this summer, seems to show that trolls are a malign influence.

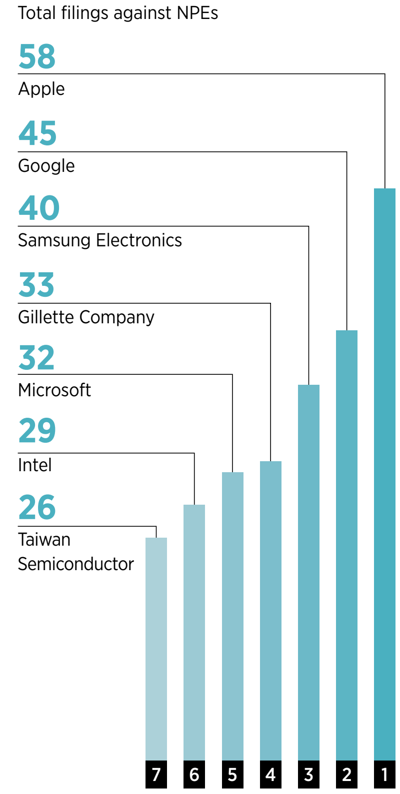
The study, by Lauren Cohen and colleagues, found big differences between the behaviour of NPEs and conventional litigants. The most glaring was in the choice of target. Taking all other factors into consideration, NPEs were four times more likely to pursue companies with assets in the bank, particularly those that have had "recent, positive cash shocks". They are vulnerable even if this cash had nothing to do with the patent in question. By contrast, lawsuits from practising entities, usually rival businesses, are much less driven by cash.

Meanwhile, NPEs are also attracted to victims already tied up with non-patent litigation, but deterred by the existence of large legal departments. Another distinct feature of NPE litigation is the tendency to "forum shop", bringing a case in a jurisdiction with the most litigant-friendly court system. A high proportion of NPE litigation is conducted in a single district of East Texas, where juries are regarded as sympathetic.

This comes at a cost. The study finds that firms which lose actions by NPEs cut their research and development spending by an average of 20 per cent compared with those that are not targeted. Most damning, only a small fraction of payouts won by NPEs finds their way back to the original innovators. The report's inescapable conclusion is that "NPEs appear to behave as opportunistic patent trolls" which, far from oiling the wheels of innovation, deter it.

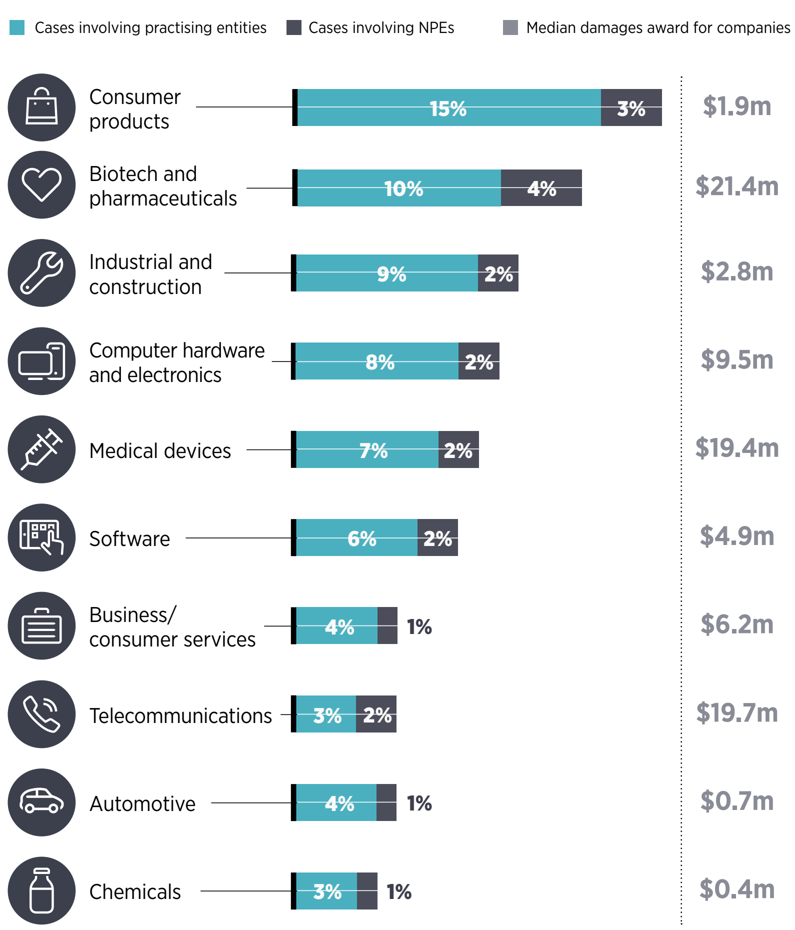
For businesses likely to find themselves in a patent troll's sights, the lesson seems to be to hire a good legal team, don't boast about cash piles – and take intellectual property seriously.

TOP FILERS OF IP RIGHTS PETITIONS AGAINST PATENTS OWNED BY NON-PRACTISING ENTITIES (NPEs), 2014



Source: RPX 2014

TOP 10 US INDUSTRIES FOR PATENT LITIGATION, 1995-2014



Source: PwC 2015

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