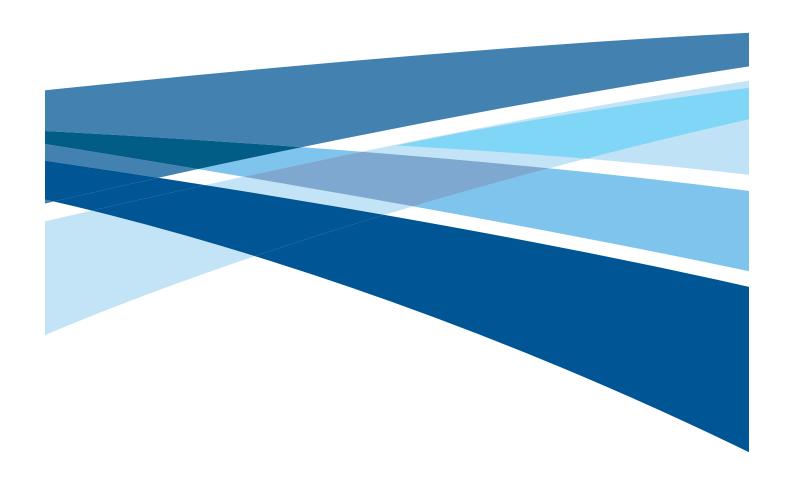


Supporting Innovation and Growth: a report on the work of the IPO 2013/14



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Ministerial Foreword



The Government's overriding economic objective is to return the UK to the path of sustainable growth. As a nation we invest more in intangible assets - £127bn in 2011, compared to £90bn in tangible assets. Half of this investment in intangible assets is covered by intellectual property rights.

The Hargreaves Review clearly and rightly made the link between intellectual property and sustainable growth. Since its publication in 2011,

the Government has been working to implement its recommendations and I am delighted to say that this report contains a record of considerable achievement. The UK has a strong reputation for the effectiveness of our IP system. For example, the Taylor Wessing Global IP Index rated the UK as the No. 1 place in the world in which to obtain, exploit and enforce IP.

This report sets out what the IPO has done to help ensure that the innovative instincts of the UK translate into growth. I have been struck by how important our intellectual property work is to innovation and our industrial strategy. It supports a wide range of old and new industries – medical research, electronic chips, fashion, consumer brands, digital technologies and content, film, music, publishing and many more.

As the report says, 39% of GDP across the EU derives from IP-intensive industries and the work of the IPO is vital to our export efforts, as I found during our recent mission to China. So is the IPO's work on education with businesses, schools, colleges and universities, and on enforcement. It was, for example, very significant that last month the IPO committed to £3m continued funding for the City of London Police Intellectual Property Crime Unit.

I am delighted to introduce this first report and wish to record my appreciation for the hard work of IPO staff.

Executive Summary

"In advanced economies like the UK's, innovation is crucial to competitive edge. That makes Intellectual Property (IP) policy an increasingly important tool for stimulating economic growth."

Professor Ian Hargreaves, Digital Opportunity: A review of Intellectual Property and Growth

When Professor Ian Hargreaves reported the conclusions of his independent review of the UK's intellectual property environment in 2011, he began with this simple statement. His report assessed whether the current IP framework was sufficiently well designed to promote innovation and growth in the UK economy and made 10 recommendations designed to address areas where he considered it to be falling behind what was needed. To ensure that the IPO retained a strong focus on promoting innovation and growth, one of those recommendations included a call for the IPO to

"... be given the necessary powers and mandate in law to ensure that it focuses on its central task of ensuring that the UK's IP system promotes innovation and growth through efficient, contestable markets."

The IP Act, which came into force on the 1st October 2014, therefore introduced a statutory obligation for the Secretary of State to place an annual report of the IPO's activities in support of innovation and growth before the Houses of Parliament. Whilst this provision does not come fully into effect until 2015, the IPO wanted to start this good practice immediately. Therefore, this is the first report on the IPO's work to support innovation and growth in the UK, covering the period from April 2013 to March 2014.

In the modern economy, intangible assets have become increasingly important to all businesses. Whilst investment in tangible assets fell during the recession, investment in intangible assets remains strong and is growing. UK investment in intangible assets protected by intellectual property rights rose from £23.8 billion in 1990 to £63.5 billion in 2011. The IPO's role is to encourage continued investment in innovation and creativity, and to make sure that investment is adequately protected. We do this by ensuring that we shape the IP environment to reflect the needs and challenges of today's businesses, inventors and creators and by making sure that the rights we grant are of the highest quality. We act to ensure that the framework we deliver strikes the right balance in incentivising and protecting investment in IP while allowing knowledge to be shared and disseminated. Both are critical for innovation. We also work to ensure that, where users fail to respect others' rights, rights holders can access effective enforcement mechanisms.

During the 2013/14 the IPO made significant progress across this agenda. Highlights include:

• We have taken action to ensure that our copyright framework reflects the impact of new digital new technologies. These changes give third parties increased freedoms to use copyright works for a variety of economically and socially valuable purposes, without seeking permission from the copyright holder. As always, this needed to be balanced with safeguards to protect creators and make sure they

- continue to benefit from their work appropriately. These changes could contribute over £500m to the UK economy over 10 years.
- We have worked to ensure that UK businesses are able to protect their rights in a number of **markets around the world** as they seize export or supply chain opportunities and build international partnerships. This year we have concluded negotiations on the European Directive on Collective Rights Management and signed the Beijing Treaty on the Protection of Audiovisual Performances. We have also worked in collaboration with other IP Offices to tackles issues around increasing patent backlogs. Our IP attachés based in China, India, Brazil and South East Asia gave direct support to over 200 businesses dealing with IP issues worth over £370 million. They have helped a further 3,400 UK businesses through their outreach and education work.
- We have a global reputation for the quality of our **rights granting** and pace of delivery. In the face of continued increases for patents and trade marks, we have developed new ways of working to improve efficiency without loss of quality. For example, we have introduced a new electronic processing system for trade mark applications as well as working with customers to develop online services for patents. As a result we are still able to complete a trade mark registration within 4 months for 87% of applications where no opposition is filed, despite a 40% increase in applications since 2009.
- We have increased our focus on building awareness of intellectual property. This work has focused on educating businesses, particularly small businesses, about intellectual property, its value and use in growing a business. We launched a suite of new products aimed at business advisors to give them the information they need to support new and growing businesses. These tools have already been used over 20,000 times. We also ran a campaign to raise awareness amongst young consumers about the importance of respecting IP, and the value of creativity. This campaign was run in partnership with a number of creative industry bodies and reached over 14 million people.
- We have introduced new legislation to make sure the IP framework supports growth, especially for smaller businesses. The Intellectual Property Act 2014 received Royal Assent in May 2014. The Act made a number of changes to design law, making it more consistent and easier to understand for businesses as well as introducing a criminal sanction to protect designers against the deliberate copying of their registered designs.
- We have taken action to tackle IP Crime. With the City of London Police, we have funded the development of the Police Intellectual Property Crime Unit. At the end of March 2014 the unit was investigating IP Crime worth over £28million. Recognising that IP crimes often originate outside the UK, we pulled together plans for the world's first International IP Enforcement Summit to bring together enforcement, policy and business voices in a global coalition to tackle criminal IP activity like counterfeiting and streaming illegal content.

 We have also completed a programme of research to strengthen the evidence base on intellectual property. This research ensures that economic and innovation impacts are central to all our policy making and that all decisions are based upon sound evidence.

In 2013, the UK was judged to be the best location in the world for obtaining, exploiting and enforcing the main IP rights. We want to retain that status within an economy that boosts innovation as a key path to sustainable growth. This report summarises our key activities to achieve this to March 2014. Where the impacts are already clear we report them, where it is too soon to see impacts we present that evidence available to date and will return to our analysis in future reports. Our mission will remain that of ensuring that the full potential of ideas, knowledge and creativity is realised for the benefit of the economy and society.

Introduction

Innovation is the lifeblood of a successful, developed economy. It is the strength of UK businesses' ideas, and the way those ideas are commercialised, that will lead to sustainable growth. The global economy is competitive. Consumers benefit from cheaper and higher quality goods, and in greater quantity, than previous generations dreamed possible. A developed economy will only prosper if it can harness the power of ideas to increase growth and create new jobs to deliver a better quality of life for citizens.

We have a proud history of innovation and creativity. Britain is the place which gave birth to the first Industrial Revolution; where scientists pioneered the jet engine and developed life-saving treatments to fight infection and other illness; and where gallium nitride, the next stage in semiconductors, was developed. We remain in the vanguard of new developments from life sciences to composite materials, from large scale civil engineering to nanotechnologies. We also enjoy a rich cultural heritage, and the creative industries continue to make a vital contribution to our economy. To take one example, in 2013 UK music artists accounted for a quarter of all European album sales and a tenth of artist albums sold in the US.

Inspired and inspirational ideas play a key role in the UK economy – and, in terms of investment, an increasingly important one. During the recession, business investment fell, but investment in ideas (or intangible assets) fell less sharply than investment in fixed assets such as machinery and property. Indeed, investment in intangible assets has outstripped investment in tangible assets every year since 1999, and the trend is of a widening gap.

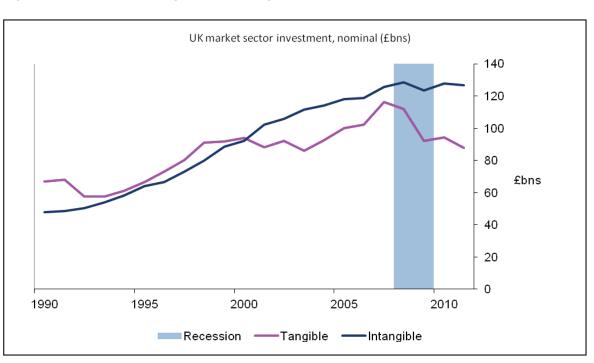


Figure 1: Investment in Tangible and Intangible Assets

Source: Goodridge, Haskel and Wallis (2014), Estimating UK Investment in Intangible Assets and Intellectual Property Rights

Society benefits from innovation. New drugs to fight disease, more choice of products, the music that brings pleasure to millions – these are just a few of the many examples of the fruits of innovation. But innovation is also good for business. It is the most effective way of gaining a legitimate competitive advantage in a market, through attracting new customers. It helps companies succeed, as new research shows.

Innovation is exciting, but risky. Market success cannot be guaranteed and a business might decide that it is in its commercial interest to be a follower, rather than an innovator. But if everyone is waiting to follow someone else, innovation simply won't happen, and we will all be the poorer for it.

This is why intellectual property rights (IPRs) exist. By providing a time-limited monopoly over a technology, design, or artistic creation, they enable innovators to get a return on the investment they have made. In 2011, 50% of investment in intangible assets was protected by IPRs. We know that businesses who manage their intellectual property (IP) more effectively are more likely to grow.

We discuss in more detail the role of IPRs in supporting innovation and growth in Chapter 1.

The Intellectual Property Office

It is a paradox of innovation that it arises both from the sharing and from the protection of knowledge. As much innovation builds on the work of those who have gone before, the IP system must strike the right balance between enabling innovators to obtain a reasonable reward for their efforts and promoting further development and new uses of existing knowledge. The IPO's task is to judge where this balance lies and ensure that this assessment - based on the best available evidence - guides its advice to Ministers and its own decisions. This report sets out how the IPO has delivered on this task over the past year.

The success of many key industries depends on an accessible and high quality IP system that is designed to promote innovation and growth. This means that they can get their ideas to market and protect their creativity. To do this the IPO needs to create a system that is:

<u>Accessible</u> – creators and innovators need to know when and how to protect and use IP rights and how to enforce those rights if others copy their ideas.

<u>High Quality</u> – customers need to be confident that when the IPO grants or registers an IP right it is highly likely to be a valid right that will stand up to challenge.

<u>Understood and respected</u> – the IP framework needs to keep up to date with developments in technology, to be understandable to those who need its protection and those who use the work of others.

The Intellectual Property Regime in the UK

The UK's IP regime has been assessed as the best in the world. The fourth annual Global IP Index (produced by Taylor Wessing) says that the UK is the best place in the world in which to obtain, exploit and enforce IP and the annual Ernst & Young Survey of the UK's attractiveness to Foreign Direct Investment comments that the attractiveness of the UK's R & D base is "enhanced by the tax incentives available through schemes such as the Patent Box and by the UK's strong regime of intellectual property protection". The judicial system is well regarded and the reform of the Patents County Court has resulted in quicker and cheaper access to justice at the Intellectual Property Enterprise Court.

Within government, the Secretary of State for Business, Innovation and Skills and the IP Minister are responsible for policy on IP. Policy on online copyright infringement is shared with the Department of Culture, Media and Sport. The Intellectual Property Office is an Executive Agency of BIS and is responsible for policy advice to Ministers and for delivering services to customers. These include granting rights, tribunal services, mediation, education and awareness raising, and coordinating efforts to tackle IP crime.

The international agenda

Throughout this report, there is a strong international theme. In a global economy, UK businesses need to be confident that they can protect their intellectual property in other markets, allowing them to find new customers and new business partners. The UK has pushed for a unitary patent and unified patent court within the EU, so that patent owners (particularly small businesses) can make one request to gain protection across 25 Member States, and enforce their rights through one court action. This represents a significant simplification. The unitary patent will provide savings to firms applying for patent protection across several participating countries in translation, administrative and renewal costs. For businesses that typically seek protection across much of the EU, the renewal fees for the Unitary Patent will offer savings over the current system. Availability of a patent right which can be used to launch an invention across most of Europe is intended to make it easier for firms to innovate across the single market. This should stimulate competitiveness and growth.

The IPO has also influenced international negotiations in a number of areas, promoting the UK's interest in growth of a balanced economy and creating a modern IP framework. We have concluded successful discussions on the Collective Rights Management Directive, signed the Beijing Treaty on the Protection of Audiovisual Performances and worked with international IP Offices to tackle the problem of increasing pendency times for patents.

¹ Taylor Wessing, Global Intellectual Property Index Report 2013, http://www.TaylorWessing.com/ipindex/. Ernst & Young Attractiveness Survey *UK 2014 Winning the race — but still more opportunity* http://www.ey.com/UK/en/Issues/Business-environment/2014-UK-attractiveness-survey

In addition to this, international work on improving operational activities has also continued. On 6 January 2014 the IPO joined the Global Patent Prosecution Highway (GPPH). The GPPH allows an applicant for a UK patent to request accelerated examination of their UK application, based on a favourable examination result received from any of the other 16 participating patent offices. Previously the IPO had bilateral arrangements with Canada, Korea, Japan, the USA, Germany and Singapore. Joining the GPPH should further help reduce backlogs caused by duplication of work.

Through a network of overseas attaché posts, the IPO also gives practical support to UK businesses operating in a number of key markets (China, India, Brazil and South-East Asia). Between April 2013 and March 2014, our attachés gave one-to-one direct support to 233 businesses, with an estimated IP value at risk of £377m. These attachés also facilitate policy dialogue with IP offices overseas, to share best practice internationally and to shape new law and policy in line with prevailing norms.

The IPO and Economic Policy

The Government wants to make the UK the best place to start and invest in innovative companies. Our future prosperity depends on getting the conditions right for innovators and creators to flourish. As well as investing in the skills and infrastructure necessary for a 21st century economy, the Government has taken action to review and update the IP framework so that it supports economic growth.

The conclusions of the independent Hargreaves Review², commissioned by the Prime Minister in 2010, have guided much of the IPO's policy work over the past few years. His review set out 10 recommendations designed to ensure that the UK has an IP framework best suited to supporting innovation and promoting economic growth in the digital age. The recommendations focused on action to ensure that the UK's IP framework was based on sound evidence, reflected an increasingly international agenda and the new challenges faced by today's businesses. The Government accepted all of Professor Hargreaves' recommendations and following an extensive consultation process has worked to drive forward implementation. This report provides an update on progress and the impact of this work.

All parts of the economy are growing, but the government still has a huge amount to do through continuing to create jobs and supporting businesses to grow. The IPO works with BIS and others to deliver the Government's wider economic policy objectives, set out initially in the Plan for Growth published in 2011.³ For example, the financial crisis brought home the need to rebalance the UK economy towards more sustainable growth, from a range of industries. At the same time, global competition is increasing. The old ways of developing business policy were no longer fit for purpose. The Government therefore committed to an industrial strategy – an approach based on partnership between government and industry.

 $^{{\}bf 2} \quad \text{https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/ipreview-finalreport.pdf}$

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221514/2011budget_growth.pdf

The Industrial Strategy: Themes

Skills

Working in partnership with business to deliver the skills that employers need.

Technologies

Investing in eight great technologies where the UK has the research expertise and business capability to become a world leader in big data, space, robotics and autonomous systems, synthetic biology, regenerative medicine, agri-science, advanced materials and energy.

Access to finance

Helping remove barriers to the supply of business finance.

Government procurement

Letting businesses know in advance what the Government is planning to buy, so that they can invest in the right skills and equipment to make the most of these opportunities.

Sector partnerships

Strategic partnerships have been developed in 11 sectors where government and business, working together, believe they can make the most difference. These are: aerospace, agricultural technologies, automotive, construction, information economy, international education, life sciences, nuclear, offshore wind, oil and gas, professional and business services.

The Government aims to work closely with UK businesses to ensure that they have the best possible opportunities to develop innovative ideas into commercial solutions. The IPO can support these efforts by granting high-quality rights and striving to make the IP legal framework as effective and accessible as possible. This is not all: the IPO is also unlocking the power of data to provide valuable insight into specific technologies, such as graphene.

Case Study

Graphene is a nanomaterial consisting of single layer sheets of carbon atoms in a hexagonal arrangement. The media refer to graphene as the 'miracle material of the 21st century'. It is the thinnest known material and the strongest ever measured. It is an efficient electrical conductor and can sustain electrical current densities six orders of magnitude higher than that of copper; it has the best thermal conductivity of any material; and it is the most impermeable material ever discovered.

In 2011, the IPO Informatics Team analysed patenting activity relating to graphene following a noticeable increase in the number of graphene-related patent applications filed in the UK. Since that report the activity in this area continued to grow. Given the high profile of graphene and its interest to scientists, technologists and policy-makers, the team updated the report in 2013 to look at the worldwide graphene patent landscape and how it was changing.

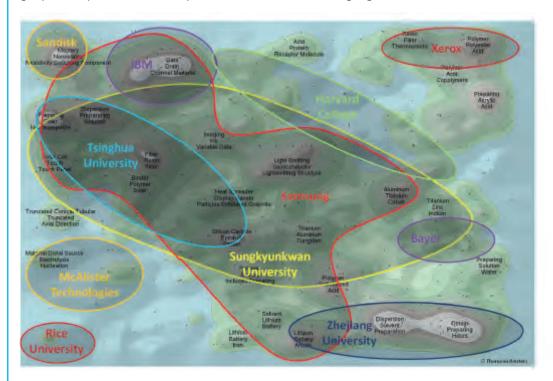


Figure 7: Graphene patent landscape map with selected top applicants highlighted

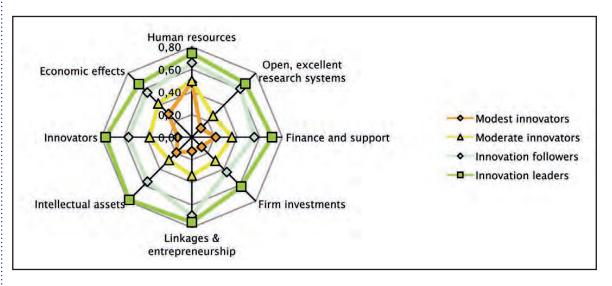
The new report showed that the number of patents relating to graphene more than tripled between 2010 and 2012. Samsung holds the largest portfolio worldwide. As with many technologies, there has been a significant increase in the number of patents published in China. Much of this increase came from Chinese applicants.

Numbers of graphene patents can be compared to numbers of patents in all technologies to determine the strength of technology specialisms. In graphene, the UK ranks higher than France and Germany, but lower than Singapore, China, Korea and the US.

The IPO and Innovation

Innovation systems are complex and interconnected. They require a mix of people, skills, research and knowledge, finance, business strategy, and a business environment that enables firms to grow and prosper. The EU's annual assessment of innovation performance looks at countries on a number of dimensions, including human resources and research systems. Only one of these explicitly recognises IP. Innovation is influenced by other factors and the highest performers – the innovation leaders – do well consistently across all dimensions.

Figure 2: EU Annual Assessment of Innovation Performance



Source: European Commission (2014), Innovation Union Scoreboard

Ensuring that the business environment encourages and supports innovation therefore demands action from a network of public and private sector partners. The IPO plays a vital role in that partnership defining the right legislative environment for intellectual property, providing high quality rights granting services, educating creators and users of intellectual property rights, building public respect for them and encouraging effective enforcement. It also works to support wider economic objectives, for example. Promoting UK exports and reducing barriers to international trade in ways that help developing countries grow their economies.

This Report

The Government understands the importance of the right framework for IP rights in supporting growth and agreed with the conclusion of the Hargreaves Review that in some cases the IP system had failed to keep pace with technological developments, and therefore there were missed opportunities for growth in the UK economy.

The Government also agreed with Professor Hargreaves that the main objectives of the IPO should be the promotion of innovation and growth. Publishing this report will enable Parliament to hold Ministers and the IPO to account.

This is the very first report. It draws upon the evidence and analysis we have used to develop policy and guide decisions on the services we offer. In many cases, the impact of changes will not be felt for some time. This is not unusual, but it means that it is difficult to give a definitive assessment of the effects of a policy or operational change. What we can say is what we expect to happen, based on the best available evidence. We must make reasonable assumptions and be clear about them, so that interested parties can submit alternative evidence for consideration. For this reason the IPO began, in 2013/14, publishing Innovation Impact Assessments alongside the standard economic impact assessment.

This approach is aligned with the Government's policies on reducing regulation, based on an independently scrutinised assessment of the costs and benefits of proposed policy measures.

As time goes on, we will return to decisions and review what impact they have had in the economy. We are developing an evaluation framework and have started reviewing individual measures. For example, in 2013-14, we commissioned an evaluation of the Lambert Toolkit which provides resources to help university-business collaboration. This programme will gather steam over the next few years.

As the economic recovery continues, the Government is committed to creating the conditions that will enable businesses to flourish. In this report, we assess the IPO's contribution to that important task. It sets out how we are making a real and positive difference for business, innovation and growth in the UK.

Chapter 1: IP, Innovation and Growth

Higher living standards in the UK depend upon the economy growing. There are two ways this can be done. The first is to increase the inputs – getting more people into work and encouraging more investment in equipment and infrastructure. The second is to innovate – encouraging the development of new products and services that help capture new custom and solve old problems including devising new and better ways of doing things. Innovation requires the development, adoption and exploitation of new ideas.

The theory that innovation boosts economic growth is supported by the evidence. Whether we look at the whole economy or individual industries within it, we see that the more innovative markets are the ones that grow, and that businesses in them are more productive. Increased productivity is essential for economic growth, without which there cannot be higher living standards.

For individual businesses too, innovation delivers strikingly positive results. Instinctively we guess that innovative firms will be better able to capture new customers and retain existing clients by offering better products and services, but that instinct is also backed by economic analysis. UK firms that introduced a product innovation between 2002 and 2004 experienced growth in employment and sales between 2004 and 2007 at around twice the rate experienced by non-innovators.

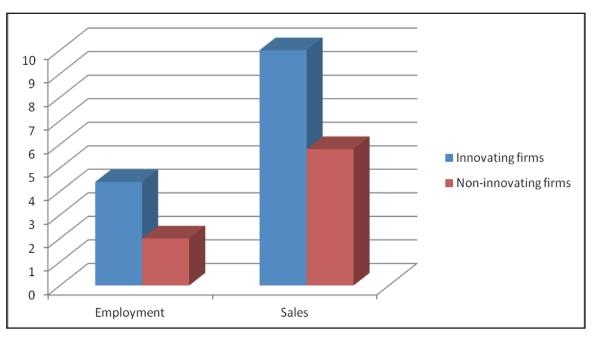


Figure 3: Percentage growth for innovating and non-innovating firms

Source: NESTA, 2009

There is an important job for Government to create the right conditions to enable innovation to flourish. A competitive market provides a powerful incentive to innovate. If a business develops new products or services that meet the needs of consumers, it can gain a legitimate advantage over its rivals. Economic evidence shows how

important competitive markets are in increasing productivity. What seems to matter is whether there is churn, with firms entering and exiting the market, and growing and shrinking within it. European economies have both fewer growing and shrinking firms than the US.⁴ The UK does better on this score than most EU countries, but still lags behind the US.

However, competitive markets on their own are not enough to incentivise innovation. There may be first mover advantage in some markets, but where products and services are easy to copy, and where research and development are costly, firms and individuals could see it as in their interest to wait and benefit from others' ideas.

This is likely to lead to a situation in which fewer businesses are prepared to take the risk, and so there would be fewer new products and services in the market. There have to be incentives for individuals and firms to innovate and invest in further R&D. This is where intellectual property rights (IPRs) come in.

IPRs are the mechanism through which their authors and inventors can be rewarded. If a firm develops a way to make engines much more fuel-efficient, this knowledge can be of benefit to its competitors and partners, as well as users and society as a whole. It is IPRs that allow businesses and individuals to invest in R&D, design and marketing that deliver the innovation. And IPRs allow innovators to license their ideas to others, which can speed their path to market.

IPRs act as an incentive to innovation, by providing a time-limited exclusive right to enable a return in an otherwise competitive market. The Hargreaves Review was clear on the relationship between IP and competition: IPRs are 'necessary departures from the reliance upon competition, to be judiciously designed to enhance innovation incentives'. This means that decisions on the length and scope of any exclusive right need to be based on the best available economic evidence.

We have seen that churn within markets is important for growth. High growth 'challenger' firms, often young, create over 50% of the new jobs in the UK, as well as in the US⁶. Government needs to create the right conditions for these businesses and reduce the number of barriers that stand in the way of their success. We cannot assume that the tried and tested ways will always work best. We need to ask searching questions, including whether parts of the IP system are acting as barriers to innovation and growth. At the same time we need to maintain the positive features of a system which provides sufficient incentives for businesses dependent on IP protection to deliver value.

In its response to the Hargreaves Review, the Government stressed its belief that IP is important for growth. The response made clear that the Government will maintain a framework which supports the UK's vitally important creative and innovative industries at risk whilst securing opportunities for growth from new and smaller businesses.

The Government concluded that the IPO should focus on innovation and growth. The evidence supports this. Business use of intellectual property rights is associated with creation, transfer and use of knowledge, higher firm productivity, and it raises the

⁴ Albert Bravo-Biosca (2011), *A Look at Business Growth and Contraction in Europe*. NESTA Working Paper 11/02. http://www.nesta.org.uk/publications/look-business-growth-and-contraction-europe

⁵ Digital Opportunity: A Review of Intellectual Property and Growth, p. 18. Accessed at https://www.gov.uk/government/publications/digital-opportunity-review-of-intellectual-property-and-growth.

⁶ Nesta (2009) The Vital 6 Percent http://www.nesta.org.uk/sites/default/files/vital-six-per-cent.pdf

chances for small firms to survive and grow. A recent report by the Organisation for Economic Co-operation and Development (OECD) finds that between 2001 and 2011, young firms whose assets were largely intangible generated 47 per cent of all new jobs in OECD countries.

Recent work commissioned by the IPO looks at intangible investment in more detail. Table 1 breaks it down into categories.

Table 1: UK market sector investment – tangible and intangible

£bns

	1990	1995	2000	2005	2010	2011
Buildings	27.0	20.5	31.5	33.7	41.7	50.6
Plant & machinery (inc. IT and CT hardware)		42.6	47.9	51.2	34.3	35.0
Vehicles	9.8	10.3	9.1	10.7	13.6	4.2
All tangibles	72.1	73.4	88.5	95.7	89.6	89.8
Intangible category						
Computerised information and databases	7.3	11.0	17.2	22.3	23.4	24.3
Software and data built by user firms	4.8	5.8	9.9	11.9	12.9	13.2
Purchased software	2.5	5.2	7.3	10.4	10.4	11.0
Innovative property	18.1	20.1	26.7	33.2	36.3	38.1
Scientific R&D	7.3	8.3	10.7	12.7	14.8	15.9
R&D in social sciences and humanities	0.2	0.3	0.4	0.3	0.9	0.9
Financial Product Innovation	0.3	0.4	0.7	0.9	1.6	1.8
Design (Own-account; Purchased)	6.7	7.0	9.5	11.6	12.8	12.9
Artistic Originals (Film; TV & Radio; Music; Books; Misc Art)	1.9	3.0	4.9	7.0	5.7	5.8
Mineral Exploration	1.6	1.1	0.5	0.7	0.6	0.8
Economic Competencies	22.5	32.8	48.2	62.6	67.9	64.5
Branding (Advertising; Market Research)	4.8	6.7	10.2	11.7	13.5	14.0
Training	11.8	14.4	19.9	25.2	27.4	25.0
Organisational (Own-account; Purchased)	5.9	11.7	18.1	25.7	27.0	25.5
All intangibles	47.9	63.9	92.1	118.1	127.6	126.8

Source: Goodridge, Haskel and Wallis, Estimating UK Investment in Intangible Assets and Intellectual Property Rights. Data from ONS.

⁷ Intellectual Property Office, Corporate Strategy. https://www.gov.uk/government/publications/intellectual-property-office-five-year-corporate-strategy Page 3.

⁸ Juan Mateos-Garcia (2014), Using Intellectual Property to Raise Finance for Innovation, World Bank/OECD.

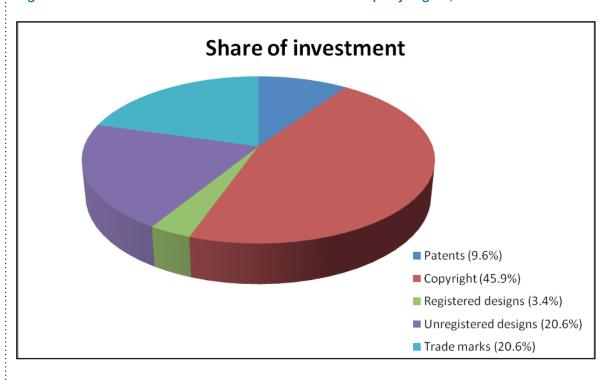


Figure 4: UK Market Sector Investment in Intellectual Property Rights, % share

Source: Goodridge, Haskel and Wallis, Estimating UK Investment in Intangible Assets and Intellectual Property Rights. Data from ONS.

These figures allow us to estimate that in 2011 £63.5bn (50%) of intangible investment was protected by intellectual property rights. Figure 4 illustrates the share of this investment per the type of IP right. By far the biggest proportion of investment is in copyright assets. This is supported by figures above which show the greatest growth area as the development of new software.

New research commissioned by the IPO, through a survey by the Office for National Statistics on how innovating UK firms use intellectual property rights, shows that there is a clear pattern of behaviour and performance. Patenting firms have a strong likelihood of succeeding with 'new to market' innovations. Firms which license IP are an important part of the diffusions of new products and processes. And the payments for licences and acquired technologies are an important part of the funding for research and development.¹⁰

Linking IP statistics with data on firm behaviour and performance is crucially important. Simply counting IP rights tells us very little in itself, as we know that there are wide variations in the commercial value of individual IPRs. Also, this misses out the important area of unregistered rights (copyright and designs) which lack the detailed datasets available for patents, trade marks and registered designs.

⁹ Peter Goodridge, Jonathan Haskel and Gavin Wallis, Estimating UK Investment in Intangible Assets and Intellectual Property Rights https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/355140/ipresearch-intangible.pdf

¹⁰ Ashish Arora, Suma Athreye, Can Huang (2013), Innovation, Patenting and Licensing in the UK: Evidence from the SIPU survey; https://www.gov.uk/government/publications/innovation-patenting-and-licensing-in-the-uk

Evidence of the importance of IP as part of our economic mix has strengthened over the past year. A 2013 study estimated that IPR-intensive industries (largely defined by the density of registered rights) make up 26% of employment and 39% of GDP in the EU.¹¹ This followed a similar exercise done in the US, with comparable results.¹²

However, this only tells one part of the story. As we have already noted, the value of individual rights varies greatly, and we also should not lose sight of the important of churn within the market. The integration of this approach with the 'innovation investment' work sponsored by the IPO remains to be done.

We have come a long way in increasing our understanding of the role of IP in innovation and economic growth, and the IPO has played a leading part in this work. There is, of course, more to be done. We continue to invest in economic research to shape policy development and improve service delivery.

This year the IPO has undertaken a research programme to strengthen the evidence base on intellectual property. This research has ensured that our policy making is based on sound assessments of economic and innovation impact. Annex A contains a full list of the research published by the IPO.

¹¹ European Patent Office and the Office for Harmonisation in the Internal Market (2013), Intellectual Property Rights Intensive Industries: contribution to economic performance and employment in the European Union. Industry-level analysis report. Accessed at http://ec.europa.eu/internal_market/intellectual-property/docs/joint-report-epo-ohim-final-version_en.pdf

¹² Economics and Statistics Administration and the United States Patent and Trademark Office (2012), Intellectual Property and the US Economy: Industries in focus. Accessed at http://www.uspto.gov/news/publications/IP_Report_March_2012.pdf.

Chapter 2: Developing the Copyright Framework

Our copyright regime is a key part of the environment for all businesses, but in particular for the UK's world-leading creative industries which together contributed £71 billion to the UK economy in 2012.¹³ It is therefore essential that we ensure the framework remains relevant within the digital age and that it reflects both the opportunities and challenges associated with new digital technologies within a balanced and fair system.

Rights holders need to be able to license their work effectively to gain value from their creativity, whilst users have to believe that they are able to make reasonable use of copyright works in ways that do not unduly harm right holders. If users feel copyright is unfair they will not respect it and are more likely to engage in infringement without any belief that it is wrong.

While an effective copyright system is an important contributor to growth in the UK economy, the relationship between copyright and innovation is complex.¹⁴ On the one hand, the ability of copyright owners to invest in innovation is affected by how effectively copyright helps them secure income. On the other, by providing a mechanism for rights holders to share in the value generated by any subsequent uses of a work, copyright may increase the cost of developing new services and new ways of delivering content, or of creating new works that derive from older ones. Improving the contribution of copyright to growth therefore involves managing these two aspects of the relationship.

Much of the IPO's policy work in 2013/14 centred on legislation to introduce the Government's planned changes to copyright. These changes aimed to remove barriers and inefficiencies in the copyright system, boosting innovation, while retaining appropriate incentives for creators and copyright owners.

Changes to the copyright framework

To ensure the copyright regime in the UK remained appropriate for the modern age, the Government introduced changes that allow a greater range of activities without a requirement for permission from the copyright owner. The changes have been guided by the view that the UK needed to adapt its strong but rigid framework for copyright into one that is:

Flexible in removing certain barriers to using copyright works to support innovation and growth;

Modern in dealing better with the challenges of current and future technologies; and

Robust in ensuring there continue to be appropriate incentives for creators and rights holders to carry on investing in the UK, as they do so successfully at the moment.

¹³ According to DCMS official statistics

¹⁴ See for example Menell, Peter S., Indirect Copyright Liability and Technological Innovation, 32 Colum. J.L. & Arts 375, 378 (2009) and Carrier, Michael A., Copyright and Innovation: The Untold Story (October 24, 2012) Wisconsin Law Review 891.

In 2013/14 much of the IPO's work in the copyright area was focused on developing policy and legislation in respect of the freedoms offered to third parties. The IPO undertook extensive consultation with users and right holders during this period. As a result of this work, a number of exceptions to copyright law were introduced in 2014. Third parties now have increased freedoms to use copyright works for a variety of economically and socially valuable purposes, without seeking permission from the copyright holder. The new, or extended, exceptions are in the following areas:

- Private copying for personal use
- Text and data mining
- Parody, caricature and pastiche
- Research exception, extended to cover all copyright works
- Archiving and preservation of all types of media
- · Copyright works for disabled consumers
- Quotation
- Education
- Public administration.

These 'copyright exceptions' contain safeguards to ensure that a reasonable balance is maintained between the interests of creators, owners, performers, consumers and other users of copyright works, thus minimising any possible adverse effects on innovation.

These changes will cut costs, through reducing the complexities of the copyright system, and encourage the creation of new businesses. Taken together, the changes are predicted to contribute over £500m to the UK economy over 10 years, and this is believed to be a conservative estimate. The basis on which the Government has assessed these benefits is set out in their respective Impact Assessments. It should be noted that benefits to innovation, such as the growth of new services, are anticipated by these impact assessments but their monetary value could not be predicted.

¹⁵ The Copyright and Rights in Performances (Personal Copies for Private Use) Regulations 2014 http://www.legislation.gov.uk/uksi/2014/2361/impacts/2014/276; The Copyright and Rights in Performances (Quotation and Parody) Regulations 2014 http://www.legislation.gov.uk/uksi/2014/2356/impacts/2014/275 and http://www.legislation.gov.uk/uksi/2014/2356/impacts/2014/274; The Copyright (Public Administration) Regulations 2014 http://www.legislation.gov.uk/uksi/2014/1385/impacts/2014/159; The Copyright and Rights in Performances (Disability) Regulations 2014 http://www.legislation.gov.uk/uksi/2014/1384/impacts/2014/158; The Copyright and Rights in Performances (Research, Education, Libraries and Archives) Regulations 2014 http://www.legislation.gov.uk/uksi/2014/1372/impacts/2014/157, http://www.legislation.gov.uk/uksi/2014/1372/impacts/2014/156, http://www.legislation.gov.uk/uksi/2014/1372/impacts/2014/1372/impacts/2014/155 and http://www.legislation.gov.uk/uksi/2014/1372/impacts/2014/154

Changes to copyright exceptions – how the new text and data mining exception could help reveal treasures hidden in PhD theses

Although the text and data mining exception is very new, researchers are already starting to work out how they can use it to enable research projects. For example, the Royal Society of Chemistry has been working with researchers from Bristol University, other UK institutions and the British Library to analyse PhD theses and create a pilot database of novel molecules that have been synthesised and reported in PhD theses.

The British Library curates the UK's record of PhD theses, the Electronic Theses Online Service (EThOS). Over 20,000 PhD theses are published each year in the UK, and not all of the vast amounts of information they contain will be published elsewhere. In particular, chemical compounds described in PhD theses may not be described anywhere else at all, so these theses represent a potentially untapped resource and could, for example, help catalyse new collaborations around drug discovery.

The pilot project used manual extraction methods as well as examining how text and data mining could be used on EThOS to extract information such as molecular structures and synthetic methods. These structures and methods are facts, which are not covered by copyright, and the theses are publically available. However, the process of text and data mining involves making a copy of the thesis which would be copyright infringement without specific permission from the copyright owner, usually the PhD student who wrote it.

Tracking down all of these PhD students would be extremely laborious and impractical. However, the new exception for text and data mining means that researchers would not be infringing copyright by analysing PhD theses as long as they are doing non-commercial research and as long as there is sufficient acknowledgement of the author. The researchers are continuing to develop their project, including considering how different models for sustainability for the programme interact with the provisions of the new exception.

Securing a Fair Return on Investment

As noted above, the ability of copyright owners to invest in innovation is potentially impaired if copyright is not enforceable in such a way as to secure returns on their investment.

Rights owners have been telling us that the removal of metadata (notably ownership information) from digital images is in many cases preventing them from securing payment for use of those images. Copyright law regulates this activity to some extent, but metadata stripping is still reported. Without action, and in the absence of innovation in business models that addressed the problem, we would expect the supply of images to be lower than optimal, as some creators would seek alternative means of earning income.

The industry-led Copyright Licensing Steering Group has developed a voluntary code of practice on the handling of metadata. Aimed at those who use digital images, especially large publishers and broadcasters whose systems often strip metadata as a side effect of file storage and conversion during the publishing cycle, the code of practice was launched in September 2013. Improved handling of metadata will make it easier for creators to be contacted for permission to use their works, and easier for infringers to be spotted online.

Licensing copyright material

New ideas will only result in economic growth if they are used. The changes to copyright exceptions described above update the instances in which someone may use copyrighted works without seeking permission from the copyright owner. In most cases, though, users will need to obtain a licence to use the IP. Licensing is an important source of revenue for copyright owners and creators, but is a cost to licensees. Making licensing more efficient can benefit both groups. Savings in the cost of licensing represent profits for the licensor which can be invested to develop further works and deliver savings for the licensee if they are passed on.

Copyright licensing - and the associated challenges and opportunities in the digital age - was a major theme of the Hargreaves Review. Many of the responses to the Review's call for evidence told of difficulties in identifying who owns the rights, even before a potential user can get into negotiations about a licence. The cumbersome process was seen to be a barrier to innovators who want to develop new services. The Hargreaves Review estimated that an ambitious industry-led solution to copyright licensing could add up to £2.2 bn a year to the UK economy by 2020.

The Government asked Richard Hooper to lead a feasibility study into developing a digital copyright exchange (DCE) in the UK. This has led to the creation in 2013 of the Copyright Hub, which is intended to increase the efficiency of copyright licensing and decrease transactional costs. The Hub is currently in its test phase. The work is industry-led, but the Government provided £150,000 of funding to kick start the work. The IPO is represented on the Hub's Board and continues to take a close interest in progress. Any significant developments for innovation arising from the Hub will be covered in future reports.

It is impossible lawfully to use copyright works where one or more of the authors cannot be found (so-called '**orphan works**'). Large amounts of historic content may not therefore be used and any economic value of that work is therefore lost. It is estimated that up to 40% of items in The National Archives and National Records of Scotland are suspected orphans.

Commercialising orphan works could lead to growth and business creation. Whilst we would expect some of the market value in commercialising these works to be realised by their owners, there should also be greater opportunity to create new products and services. A system for commercial and non-commercial licensing of orphan works was introduced on 29 October 2014 (https://www.gov.uk/apply-for-a-licence-to-use-an-orphan-work). With such a system in place, archive holders will be able to make available historic content in their archives, and others could profit legitimately from publishing 'lost' works for the first time.

¹⁶ See the Impact Assessment at http://webarchive.nationalarchives.gov.uk/20140603093549/http://www.ipo.gov.uk/consult-ia-bis1063-20120702.pdf

Many works are covered by **collective licensing** managed by collecting societies. They can save licensees time and trouble and make it easier for creators to get paid. The Government has introduced a system of Extended Collective Licensing (ECL), which by moving from an 'opt-in' to an 'opt-out' system allow more works to be brought under the collective licence umbrella under some strict conditions.

The Hargreaves Review noted that collecting societies perform a valuable role by reducing the transaction costs of licensing. However, the Review also heard a number of concerns, both on transparency and on unfair or misleading practices in charging for the use of works. Increased transparency and improved governance of collecting societies will benefit the societies themselves, their members and licensees. Many members, licensees and potential licensees are small and micro-businesses. The Government therefore encouraged UK collecting societies to adopt robust codes of conduct and introduced legislation to enable it to impose such codes, if self-regulation fails. These regulations came into force on 6 April 2014. A European Directive to regulate the sector's actions across Europe, the Collective Rights Management Directive (described further below), is due to be implemented by April 2016.

International Action

For an open trading economy, such as the UK, there are big benefits to be gained from reducing trade barriers faced by business. Over half the UK's trade in goods and services is with the EU, so a more effective single market will support economic growth. Looking further afield, UK businesses in knowledge-intensive sectors need to be able to access and use IP systems in other countries securely and fairly. This is very much true of the copyright-based industries.

Much copyright law is governed by international agreements, and the IPO plays a key role in ensuring that the right balance is struck, to promote the growth of the UK and global economy, and meet the needs of economies at very different stages of development. During 2013/14 we have influenced a number of major international negotiations, securing positive outcomes for the UK.

Negotiations came to a conclusion in February 2014 on the **Collective Rights**Management Directive. The Directive should ensure that artists' rights are better protected and that they receive royalties promptly. Online music providers should find it easier to get licences to stream music in more than one Member State and provide larger catalogues of music. Consumers will have better access to legal, EU-wide online music services, including niche repertoires. Greater efficiency should reduce licensing costs and lower barriers to entry, which in turn could encourage the development and rollout of new services. As one of only two net exporters of music in the EU, there is considerable potential for the UK to gain from such developments.

The **Beijing Treaty on the Protection of Audiovisual Performances**, signed by the UK in June 2013, will bring benefits to performers. It gives them new economic rights, including the right to control broadcasting or recording of their performances and the ability to control the copying or distribution of those performances. It will strengthen UK performers' position in overseas markets.

Chapter 3: Delivering High Quality Rights

We know that there is a positive relationship between registered rights and business performance. Research published in December 2013 demonstrated that patents are significantly more important for 'new to market' innovators than previous analysis had shown.¹⁷ The research noted the previous finding that only 3% of UK firms applied for a patent. However, more than a quarter of 'new to market' innovators applied for a patent for their most significant innovation. Earlier research had shown that patents act as an incentive to innovation but this recent research showed a link between patenting activity and revenue generation. They allow firms to charge a price premium for a new product, thus increasing profitability. This increased profitability encourages the firm to invest in R&D.¹⁸

We also see a positive relationship between trade mark use and business performance. Research has shown that trade marking firms are 7% more productive than those that do not use trade marks, and a higher intensity of trade marking (i.e. ratio between the number of trade marks and the number of employees) is associated with better productivity in younger and smaller firms.¹⁹

Rights delivery therefore plays a significant role in promoting growth. This chapter highlights what the IPO has been doing to ensure that our rights granting operations continue to deliver a high-quality service to our customers. For trade marks, the attention has largely been focused on increasing efficiency and speeding up the oppositions process, by which a third party can try to stop the registration of a trade mark; while for patents, there has been much activity on international cooperation, ensuring the Office is able to meet future demand and delivering the services customers need. This year has also seen significant legislative work on designs, which is covered in detail elsewhere in this report.

Patents

The chart below shows the pattern for filing of search requests from 1995, the search being the first significant stage in the patent process. Following a period of decline, demand for patent searches and examinations at the IPO has increased by about 15% over the last three years, with December 2013 being the busiest month for patent searches for some 10 years. Demand is expected to increase further over the next three years.

¹⁷ Arish Arora, Suma Athreye, Can Huang (2013), *Innovation, patenting and licensing in the UK: Evidence from the SIPU Survey*, IPO. https://www.gov.uk/government/publications/innovation-patenting-and-licensing-in-the-uk

¹⁸ Bronwyn Hall, Christian Helmers, Mark Rogers, Vania Sena (2012), *Use of Alternatives to Patents and the Limits to Incentives*, IPO. https://www.gov.uk/government/publications/the-use-of-alternatives-to-patents-and-limits-to-incentives.

¹⁹ Christine Greenhalgh, Mark Rogers, Philipp Schautschick, Vania Sena (2011), *Trade Mark Incentives*, IPO. https://www.gov.uk/government/publications/trade-mark-incentives

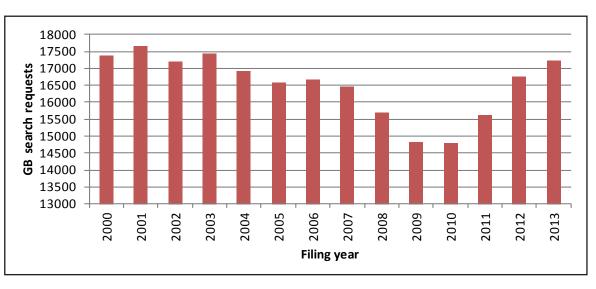


Figure 5: GB search requests

Source: IPO data

In 2013/14, to ensure that the IPO is able to meet this demand and continues to provide the high quality patent granting service needed to support innovation, it developed a comprehensive recruitment and training strategy for patent examiners. This led to the successful recruitment of 49 new examiners in September 2014. This is part of a three year strategy to make a step change in its capacity and get on top of backlogs.

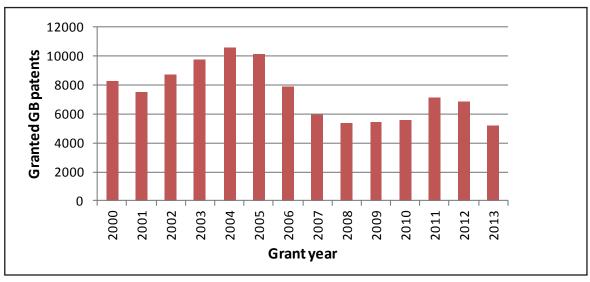
During 2013/14 the IPO also evolved its approach to unrepresented applicants to provide more direct and realistic advice on whether they should be seeking patent protection. Unrepresented patent applicants are applicants who choose not to use a patent attorney or advisor to help them apply for a patent. They account for just over 20% of all patent applications filed at the IPO but only around 5% of such applications result in a granted patent and few of those granted are renewed for any length of time. The contribution to economic growth of these patents is considered to be relatively low. A disproportionate amount of scarce examiner time is however devoted to dealing with these cases.

This would matter less to the IPO as a business if capacity and demand were in balance. However, current demand for patent searches and examinations considerably outstrips specialist capacity, which means backlogs are growing not reducing; over the 2013/14 year there was a 29% increase in search and examination requests awaiting action at the IPO. In 2013/14 the IPO established a new dedicated unit to handle all patent applications from unrepresented applicants. The unit will tailor its working methods to ensure that unnecessary effort is not wasted on many of those applications which fall out early in the examination process. This will free up high value patent examiner resource to concentrate on patent applications with greater growth potential. The IPO also started work on potentially providing an invention publication service as an alternative to patent protection for those applicants who may simply be satisfied with receiving recognition of their idea.

Of course, not all applications will turn into granted patents. The IPO aims to grant patents with a high presumption of validity. It is not in the interest of the economy for

invalid patents to be on the register, or for customers to receive inadequate searches. Invalid patents would unfairly constrain the actions of third parties, and if these third parties are small businesses they are less likely to bring action for invalidity. For this reason it maintains the highest quality of search and examination possible. The patents granting process has been certified as meeting ISO 9001:2008 (Quality Management Systems).

Figure 6: Granted GB patents



Source: IPO data.

Processing of patent applications

With demand continually rising and the time between application and grant increasing, some commentators suggested businesses needed the option of getting the patents granted in a far shorter timeframe. In 2013 the IPO conducted a public consultation on the value of a premium 'superfast' patent processing service. The proposal was to offer a service, which, on payment of an additional fee, would enable patents to be granted in around 90 days. Businesses were very clear that the priority for them is always quality. They are far less concerned with speed of delivery than making sure the end result is a high presumption of validity. It was clear from the responses to the consultation that there was very little demand for such a service and it would not be used. The IPO therefore decided against introducing superfast processing.

Whilst speed to grant is not the main priority for applicants, customers do value receiving their search reports within a relatively short timeframe. Early insight into how new a technology actually is can give businesses the confidence to make further investment or seek to commercialise their idea. The search is often the first clear indication an applicant has to the likelihood of a patent being granted, and allows them to make an assessment of the likely scope and value of any resulting right. This assessment allows them to make informed decisions as to whether to spend money filing patent applications overseas, a decision which has to be taken within 12 months of the first filing of the application. A prompt search can, therefore, save a business from wasting money. The IPO aims to provide 90% of search reports within 6 months

of request and in 2013/14 they were issued within 6 months and 5 days.

Although there was no widespread demand for superfast processing, it is clear that some customers do require a quicker process than is standard. Customers often wish to accelerate a particular part of the process, for example to get an earlier examination report if they are aware of a potential infringer. In these cases the IPO offers an acceleration option. In 2013/14 the IPO committed to a two-month turnaround for patent search, publication or examination to ensure that those customers who want it can get a patent in a year or less as opposed to the usual 4 to 5 years. This target time was achieved for over 95% of all requests.

International issues

Increasing demand for patents is not just an issue for the UK. IP Offices around the world are seeing unprecedented demand for their services, with corresponding rises in their backlogs of unprocessed applications. There is a cost to these backlogs. Third parties wishing to bring products to market need to know what rights already exist. Patents that are pending for a long period mean uncertainty for third parties who do not know whether a patent will be granted and if it is what its scope will be.

Reducing uncertainty is a driver for the IPO's efforts to tackle global patent backlogs. A study commissioned by the IPO estimated that an additional year of pendency at the US Patent and Trademark Office, European Patent Office and Japan Patent Office could impose costs of £7.6bn on the global economy.²⁰

The IPO has been working with Patent Prosecution Highway (PPH) partners to simplify and standardise the PPH system for users, and expand it to more offices. The PPH allows the IPO and other offices to speed up the grant of a patent by making use of relevant work carried out by another office. A global PPH pilot was launched on 6 January 2014 with 17 participating offices, including the UK, USA, Korea, Japan and Russia. The UK also agreed a bilateral PPH agreement with China in December 2013 which resulted in a two year pilot which began in July 2014.

²⁰ London Economics (2010), Patent Backlogs and Mutual Recognition. An economic study https://www.gov.uk/government/publications/patent-backlogs-and-mutual-recognition

Trade Marks

Trade mark applications have been soaring. As the chart shows, demand dipped during the financial crisis but has been rising since. In 2013/14 levels were 19% up on the previous year.

Figure 7: IPO trade mark applications by filling route

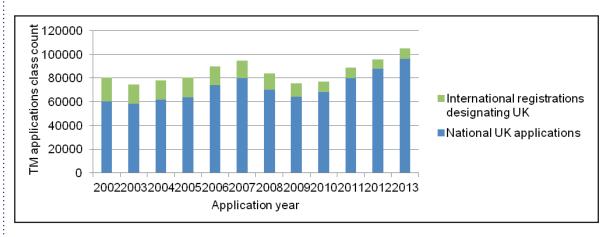
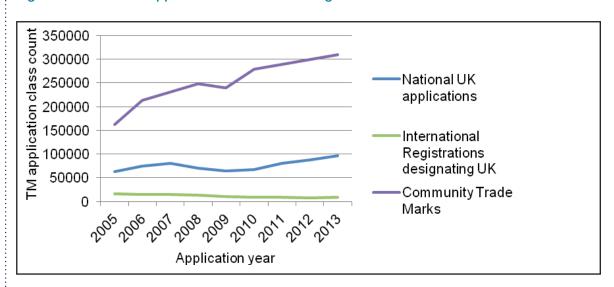


Figure 8: Trade mark applications with UK coverage



The IPO has seen a 40% increase in the number of applications in recent years. The IPO has seen a 40% increase in the number of applications filed since 2009, to over 48,000 last year. Improvements in internal processes and systems, alongside a strong recruitment and training strategy for trade mark examiners, meant that the Office has coped well with this increase. In 2013/14 the IPO registered 87% of applications where no opposition had been filed within 4 months.

Where an opposition is filed it is important that the issue is resolved as quickly as possible. Reducing the cost, complexity and increasing the speed with which businesses and individuals can protect their trade mark rights should stimulate the innovation and creativity of UK business. SMEs will be able to invest in their trade

marks knowing that there is an affordable procedure to oppose any future conflicting marks.

In 2013/14 the IPO made changes that dramatically improved performance in dealing with oppositions. All trade mark opposition and cancellation proceedings at the IPO have been accelerated: 80% of all oppositions and cancellation applications, which progress to a formal decision are now determined within 15 months, most of these within 12 months. For comparison, in 2013 the corresponding figure was that 85% of such cases were determined within 18 months.

In 2013/14 the IPO also introduced a fast track opposition procedure. An opponent to a trade mark can request that their case be placed within a streamlined process and, unless the defendant can provide compelling arguments as to why the case is not suitable for fast track, a decision will be delivered in around 6 months. 7% of opponents now use the fast track procedure.

Designs

The importance of designs is increasingly recognised by business and evidence demonstrates its clear importance to business growth. Data from 2010 showed that design intensive industries contributed approximately 11% of UK employment and €195billion to UK GDP.²¹ As shown in the chart below, the number of applications for registered designs within the IPO has increased over the past five years.

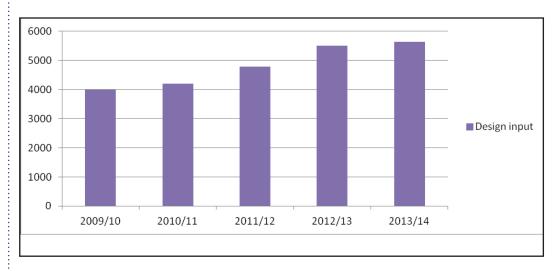


Figure 9: Number of Design Applications

Design law and the Intellectual Property Act 2014

This year, the IPO has focused much of our activity on putting in place legislation which will allow it to make much needed changes to the design application process. These changes will allow customers to apply for, and the IPO to process, applications entirely electronically, simplifying procedures and improving efficiency.

²¹ EPC/ OHIM. (2013). 'Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union: UK'. https://oami.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPPerceptionStudy/ip_perception_infographics_uk.pdf

Unclear law can place costs on businesses, limiting their ability to grow by using valuable time and money in seeking legal advice and assessing potential risks. The Intellectual Property Act 2014 brought in a number of changes to design law, simplifying the legal framework and providing greater consistency between design right and other areas of IP. Previously, if there was no clear contract in place, the rights in commissioned designs could end up with two different default owners: UK rights being owned by the commissioner but EU rights for the same design – which also apply in the UK – being owned by the designer. The new law has removed this problem and it is now clear that, unless a contract to the contrary is agreed, the UK rights will be owned by the designer. This creates consistency across the different forms of design right in a commissioned design as well as with the situation in copyright law. The Act also simplified the eligibility criteria for the UK unregistered design right. This simplification will make it easier for businesses to understand whether they qualify for UK unregistered design right.

Modernising our services: digital delivery

Increasingly, customers expect the IPO to deliver services digitally. They are used to being able to deal with businesses and government online. Moreover, customer research and feedback from across the IPO's customer touchpoints has confirmed that its customers support the ambition to make all of our filing and search services online in accordance with the government's 'digital by default' strategy. In 2012 research identified patent renewal as a high priority for development as a new online service. Work on this throughout 2013/14, as a government exemplar project, was shaped and driven by customers from concept through to launch of the new service in July 2014.

In 2013/14, the IPO implemented a new IT system that modernised its entire trade marks operations with the culmination of our TM10 project. The system includes an electronic case file enabling our examiners to process applications - a stunning 98% of which are now electronically filed - without paper files. It also includes workflow tools to speed up case processing. The many benefits for customers include an extended range of trade mark data available on-line and a new state-of-the-art trade mark search system hosted on the IPO's website. The project delivered a new online trade mark renewals service which achieved immediate and rapid take-up growth as customers recognised the speed and ease-of-use advantages it offered over paper forms. The TM10 project also gave an opportunity to devise a radically improved online trade mark application form with features that make it easier for SMEs to apply without professional assistance. The IPO engaged professional as well as SME customers in designing the new form through two rounds of formal usability testing. This helped to ensure that it delivered a step-change improvement in customer experience.

In 2013-14 IPO make substantial progress in 2 keys areas of customer experience, both of which helped it become more efficient in its work. There was a 19% reduction in avoidable telephone contact with the IPO's Information Centre in the year – achieved by targeting improvement action on specific website guidance, forms and correspondence that were generating calls for help or clarification. In parallel, a 20% reduction was achieved in the proportion of forms submitted with errors or omissions. This was done by redesigning and simplifying all Trade Mark forms, as part of the IPO's TM10 project, which successfully ironed out common problem areas.

Patent Renewals - an exemplar project

In 2013 the IPO earmarked an online patent renewals service for development as a government exemplar service, one of only 25 across government that have been subjected to special rigour and a series of assessments by the Government Digital Service (GDS). Customers have been at the heart of this work from the outset, validating and shaping the initial concept for the service and thereafter iteratively testing prototypes of increasing complexity. Throughout the process, the IPO has gathered and acted on customer feedback to fine-tune the service, which formally went live on July 2014. It has already been used to complete over 5,000 renewals online, from customers in over 30 different countries.

Chapter 4: Business Support

The IPO has also been working on plans to improve the IP system for businesses. In 2012, the IPO responded by publishing *From Ideas to Growth*²², which set out its plans for improving its offering for SMEs, and introducing more stretching corporate targets for its business outreach work. Since then it has retained as one of its key strategic goals the need to improve understanding of IP across the business community. This means making sure business can find the information they need, ensuring business advisors have the expertise to guide clients in managing their IP, and giving the next generation of business leaders the IP skills they will need to succeed.

IP for Business

All businesses need to understand when and how to use IP as part of their wider strategy and plans. Intellectual property needs to be seen as one element of a business plan. Many businesses, particularly SMEs and start-ups, fail to recognise IP assets they have and therefore do not adequately protect or use their IP. To make this worse, many business advisors also have very limited knowledge of IP. They find it difficult to spot potential risks and opportunities, and lack confidence in guiding their clients on IP matters.

In October 2013 the IPO launched IP for Business. Developed in collaboration with businesses, business representative organisations and business advisers, this is a set of tools aimed at businesses and their advisors to give them a basic understanding of the different forms of IP and how it can be used within a business. The toolkit includes:

- IP Basics Free guides to help business owners understand IP
- IP Equip Free, interactive e-learning tool will help businesses and their advisors to identify assets which may be protected by IP rights
- IP Equip app Free information app to give businesses and advisors easy access to IP information
- IP Health Check Free online tool for businesses to identify IP assets and how they can be used to add value to their business
- IP Master Class An in-depth course on IP for business advisors which can be completed face to face or online

These tools allow businesses to make an assessment of their IP assets and to begin to develop a strategy for making the most of them. All of the tools also help businesses identify where they can go next to get the right advice for them.

IP for Business



Since its launch, the IP for Business tools have been used by many businesses and business advisors to improve their understanding of IP and how it can be used to generate income and grow a business.

- IP Equip 1861 modules completed
- IP Equip App 1562 downloads
- IP Basics 12,139 downloads of our information booklets
- IP Health Check 19,570 health checks completed
- IP Master Class 90 business advisors successfully completed face to face course and 517 enrolled for the online version

There have also been over 65,000 visits to the IPO's dedicated IP for Business webpages.

*All figures are to the end of September 2014

As well as providing online tools the IPO has also maintained its programme of events around the country. These events are targeted at business advisors and are often run in partnership with other business support organisations.

Business Outreach

This year, the IPO has teamed up with a wide variety of organisations including Companies House to reach first time directors, HMRC to reach accountants and finance advisors and the Patent Library network to reach small business advisors.

This year the IPO ran 357 events, talking to over 18000 businesses and business advisors. This represents an 80% increase on 2010 figures, when the IPO spoke to 10000 businesses and advisors.

We know that over 85% of delegates find these events useful, with almost 70% having taken action based on the information they received.

To maximise its reach, the IPO has focused its effort on training intermediaries. The people that businesses approach when seeking advice on managing their business. It has funded places on our Master Class training programme for advisors within UKTI, the government backed business support programme GrowthAccelerator,²³ InnovateUK²⁴ and also across the network of Patent Libraries, including those who are rolling out the business model used by the highly successful Business and IP Centre at the British Library. In 2014 the IPO will host an event for all those advisors who have completed the Master Class training programme, to refresh their knowledge and provide a networking opportunity for advisors to share knowledge and experience.

IP Audits

For some high growth potential businesses which are heavily reliant on being able to maximise the value of their IP, the information provided by IP for Business will not be sufficient. These businesses need more detailed guidance and support tailored to their needs. Since 2011, the IPO has therefore worked in partnership with GrowthAccelerator, Scottish Enterprise and the Welsh Assembly Government to identify businesses that would benefit from an in depth IP audit, which provides an evaluation of all of the firm's IP assets and recommendations on how best to protect and exploit them to deliver increased revenues and sustained company growth. This year we expanded the scheme to give 300 businesses a fully funded audit carried out by an IP professional.

These audits are highly valuable to the businesses involved. An independent evaluation carried out this year found that 82% of businesses had acted or were acting on the results and over 40% saying they had identified new opportunities to exploit their IP, for example through licensing or franchising. Feedback from businesses showed that to really maximise value of the IP Audit they would benefit from advice from an IP professional on how to take forward the recommendations from their audit. The IPO therefore worked with the Chartered Institute of Patent Attorneys (CIPA) and the Institute of Trade Mark Attorneys (ITMA) to develop the IP Audits service further. For 2014/15 the IPO has launched IP Audits Plus. This scheme will allow businesses who have had an audit to additionally receive a free follow up consultation with an IP attorney to identify next steps and act on their report's findings.

Dr Karsten Karcher, founder and CEO of Pulsetta:

"The IP Audit process provided a helpful overview and collation of key business intellectual assets in one overview document and how these assets form part of the business's value proposition.

Pulsetta had previously recognised its intellectual property as being integral to the growth and value of the business, including patents, trade marks, copyright and trade secrets. The IP Audit process enabled me to understand the wider intangible assets and how these assets form part of the business's value proposition – for example the company's achievement of awards and positive press coverage, that are underpinning its growing brand and reputation as a supplier of high quality foods with a range of health and nutritional benefits.

The whole timing of the IP Audit was most useful to underpinning Pulsetta's growth plans and identifying threats and opportunities.

One of the key objectives of undertaking an IP Audit was to make it part of an Investor Ready Proposal and to form part of the Pulsetta's Investor Pack. The Audit has fully achieved that purpose. As well as being an extremely helpful management document, it has been well received by both business advisers and potential investors."

Supporting university and business collaboration

The UK has some of the finest universities in the world, inspiring our future generations of inventors, innovators and entrepreneurs. Giving today's students the IP skills they will need to succeed in the future is essential for the UK's future economic growth. Many universities also have excellent partnerships with local and national businesses, helping to take research from the early stages of an idea right through to a marketable product. The Lambert Toolkit supports these university-business collaborations, providing model licensing agreements, guidance and a decision guide to help select the best model agreement. The toolkit has been in place for 9 years and is well known throughout the sector. This year the IPO evaluated the usage of the agreements and accompanying toolkit and identified a number of improvements that could be made. We will be making these changes in the coming year, with the support of a group of practitioners from industry and academia who have key experience in negotiating IP deals.

Making Oxford IP accessible

The Isis SME Smart IP Scheme offers SMEs greater flexibility and reduced business risk when accessing intellectual property from Oxford University.

Six months after the launch of the scheme running with support from the UK IPO Fast Forward 2014 award, twenty projects have been added and two development licences have been finalised.

The scheme allows SMEs to access IP projects via a phased programme, with Isis providing IP management expertise and marketing resources. Isis also provides SMEs with proactive assistance to access financial support for developing new products and technologies.

In the first stage, SMEs enter into a development licence with Isis to apply their R&D resources and development expertise to turn a scientific technology into a new product design and specification.

Assistance is available at this stage to help with upfront IP costs related to the development licence via an Isis fund supported by the UK IPO Fast Forward 2014 award.

Once a new product specification exists, the second stage gives the SME three options:

- to make and market the product internally
- to out-license the designs and IP to a suitable manufacturing and marketing company
- to pass the designs to Isis for them to identify and engage the marketing organisation

In each of these scenarios the SME that has invested in the development of the product will earn a share of future revenues.

Dr. Antonin Vacheret with his first prototype design of neutron detector



One project, featuring IP around a neutron detector for homeland security was taken up by Kromek Limited. Kromek is a leading developer of radiation detector based on Cadmium Zinc Telluride. Kromek detectors provide a platform technology base which is used in 3 focus market areas: Security, Medical and Nuclear to provide high resolution materials (both threat and benign) identification capability. These are used in company products as well as OEM solutions in sectors such as aviation security liquid threat screening; Computed Tomography and Bone Mineral Densitometry systems in OEM

Medical systems; and in high performance gamma radiation spectrometry devices for detection and identification products for the nuclear and homeland security markets.

Alongside this, through the Fast Forward competition, the IPO has given over £660,000 to universities in 2013/14 to support business-university collaborations. This takes the total support, since the competition launched in 2010, to over £2.7million. The competition offers relatively small amounts of money to innovative projects within universities that aim to strengthen links between universities and the business world, maximising the benefits of their innovation and intellectual property. Winning projects come from a wide range of different subject areas, from 'Horticultural Micropropagation services' at the Royal Botanic Gardens at Kew to the 'Sports Innovation Challenge' at the University of Stirling which has capitalised on the Commonwealth Games and the Ryder Cup to help students explore the IP in their sports innovations. They represent a variety of different approaches for developing innovative uses of IP within university/ industry relationships that help deliver long term structural benefits to the UK economy and society.

Case study - Plymouth University's 'App Challenge Model'

Plymouth University received £75,000 to develop their App Challenge Model, working with medical charities, software developers and the NHS to create new condition-related apps for the benefit of patients. Medical charities are potentially major owners of software IP, which can help patients understand and manage their conditions. The project's aim is to demonstrate how charities can manage competitions in which patients and developers join forces to create new apps. Two app challenges will be run for diabetic and weight loss surgery patients, working with charities such as Diabetes UK and WLSinfo to develop and commercialise apps that help them manage their conditions. The main output of the project will be a model and resources that can be used to support future competitions.

International

In today's increasingly global economy many businesses are seeking to exploit opportunities overseas. Fears around the protection of IP, or simply not understanding the framework in a foreign market can make exporting a daunting experience. The IPO provides support to help businesses to achieve the full potential of widening their market.

The IPO provides information online on key international markets. This gov.uk website gives country specific guides²⁵ to help businesses begin to understand the market they are interested. Additionally the IPO has attended regional business events run by UK Trade and Investment, the China-Britain Business Council, Confederation of British Industry and others to help those considering exporting.

To provide more intensive support in the most important markets, we have attachés based in four key overseas locations - China, India, Brazil and South East Asia. These provide on the ground support to businesses as well as support for UK's interests to national governments. These attachés are highly valued, with 79% of businesses surveyed saying that their contact with an attaché had added commercial value to their business

IP Attachés

The IP attachés:

Supported 233 business, the estimated IP value at risk being over £377million

Ran 173 outreach events, reaching over 3,400 British businesses

Businesses and trade associations value their services:

"With the attaché's support, there is now a mechanism to alert local companies to infringement and they do take action to take these sites down." - Publisher

"In emerging markets there may not yet be a fully developed recognition of the importance of IP protection. We look for support from the attachés for developing base understanding." - Fashion Business

"[The value] is really lobbying on specific issues where there are policy issues and it's helpful to have the IP attaché there to make our case. The issues have wider significance, so it's helpful to have the IPO backing us." - Luxury Brand

"The attaché has been good at providing us with legislative developments; the insider, local knowledge is irreplaceable" - Global Trade Association

Chapter 5: Building Respect for IP

IP rights will work most effectively where they are respected by potential consumers and where legitimate consumer interests in access to those rights are respected by rights holders. The IPO plays a key role in ensuring that there is an effective infrastructure which allows rights holders to enforce their rights where they are infringed, but within which rights holders understand the role they must play in providing appropriate routes for consumers to access their IP legally. This holds true across all IP rights, but digital technologies have thrown up particular challenges for copyright protection where consumers do not always understand the potential harm caused by illegal access to digital content and may perceive restrictions on access or the cost of access as unfair. The work the IPO has done to introduce exceptions to copyright to allow third parties greater freedoms help to ensure that the IP system balances the interests of both creators and consumers, but it needs to sit alongside work to build a better consumer understanding of IP and why they should want to respect others' IP rights. For this reason the IPO set itself a goal of reaching at least 4 million people with the message of 'respect for IP'.

Understanding our audience

In 2013/14, the IPO undertook several pieces of research to understand the problem of illegal downloading of content and to explore the best ways of reaching these individuals to encourage them to consider their behaviour more carefully.

The most detailed survey of behaviour was funded by the IPO, working in partnership with Ofcom, and carried out by Kantar Media²⁶. The study was carried out in four phases, surveying around 5,000 consumers in each phase, with the last phase concluding in May 2013. The survey covers Music, TV, Films, Books, Software and Video Games, and its sample represents a total internet population (aged 12+) of 44.5 million.

The Kantar study highlighted some interesting facts about the pattern of illegal downloading. For example, a small number of infringers were responsible for the vast majority of illegal activity - the top 10% of infringers (1.6% of the 12+ internet user population) were responsible for 79% of infringed content. It also found that infringement was increasingly taking place on mobile networks. This is not surprising as the population is generally moving to increased use of tablets and mobile phones to access material online. The study also found that confidence in identifying legal content, which had been low, had increased. This is important. If consumers cannot be confident that the sites they are using are legal, they cannot easily make the right choices. The survey also found that the most frequent illegal downloaders were men in the 16-24 age bracket, with 1 in 3 of this group downloading at least some of their content illegally.

A similar survey published by the Office for Harmonisation of the Internal Market, looked at the attitude and perception of people across the EU²⁷. This survey found that 9% of EU citizens reported that they had intentionally accessed, downloaded or streamed illegal content from the internet over a 12 month period. However, the survey also concluded that demographics gave a greater understanding here, with 26% of those between 15 and 24 years old reporting to have accessed, downloaded or streamed illegal content in the same period.

As a result of the evidence found by these studies, it is clear that tackling the problem of illegal downloading requires influencing younger consumers, those who are accessing a high volume of illegal content, and those who might just be reaching the age where they will begin to do so.

Counterfeiting and piracy can be a very emotive topic for creators and consumers alike. In June 2013 the IPO undertook some qualitative insight research, listening to our audiences of IP consumers. The purpose of this was to examine our messages, to ensure the IPO communicates with them in ways they understand. Researchers heard from 92 consumers aged between 13 and 45, from a variety of backgrounds including school children and students, engineers and craftspeople, teachers and instructors, parents, salespeople and many more. They were asked about their attitudes and behaviours, their perceptions of IP and infringement, what they felt about our current consumer campaigns, and what they would like to see in future campaigns.

These consumers said that downloading was the worst offence, of all the piracy and counterfeiting activities. But they also said illegal downloading is not only free, but also quicker and more convenient. Buying counterfeit goods was considered a very petty crime. Across all ages people expressed little to no legal or moral concerns about buying any counterfeit product. This is something that the IPO wishes to tackle with effective, targeted messaging.

The IPO has tested different messages with this target audience. Focus group discussions showed that messages built around the harm illegal downloading did to the economy were likely, at best, to prompt indifference and, worse, resentment where the idea of causing harm to people perceived as wealthy - musicians, record labels, and agents - and failed to stimulate any moral reaction or concerns about damage to the wider economy.

Tackling the next generation is felt by many to be the most promising approach. The research said the IPO should consider targeting its efforts towards children and teens who had limited or no practical exposure to illegal downloading. There was also a positive response to reaching young people with positive role models, using popular music acts, artists or sports stars that children and young teens look up to. Messages should focus on the detrimental effects of downloading, as well as leading toward legal options and could be made more engaging by using young aspiring artists or music label representatives.

²⁷ OHIM (2013), European Citizens and Intellectual Property: perception, awareness and behaviour https://oami.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPContributionStudy/25-11-2013/european_public_opinion_study_web.pdf

National Awareness Campaign

In 2013/14, the IPO therefore developed a national campaign of activities to reach at least 4 million people with messages geared to building respect for IP. Using the insight gained through research, the campaign consisted of a series of highly targeted projects, focusing on key age groups and run in partnership with industry groups. It took a positive approach, based on appreciating the value of music, film and innovation, with negative messages showing the impact on individuals rather than the wider economy. Alongside this, an over-arching media presence was also created to draw attention to the IPO's work and the importance of respect for IP.



The campaign kicked off in November 2013, with the live tour of the 'Karaoke Shower' starting at the Music Show in Manchester. The Karaoke Shower is a small booth where people are invited to sing in the "shower" and post a video of their song to social media. It includes messages around the value of music, our emotional connection to songs and messages around the value of copyright in ensuring the continued success of British music.

For the youngest audience the IPO works in partnership with FunKids Radio. FunKids developed a series of radio broadcasts aimed at under 12s. The series covered the full range of IP issues in a light touch way, highlighting the emotional attachment to one's creative outputs and why this should be respected. The series reached over 170,000 young people and their parents..



The IPO has a long standing relationship with Aardman Animations and for several years has run its Cracking Ideas competition. The competition is supported by a set of resources to help teachers introduce IP into the curriculum. Cracking Ideas introduces our future innovators to the concept of IP, and the value of protecting innovation and creativity. This year's competition received 2000 entries.

The campaign culminated on 5th February 2014 with the launch of Music Inc, a downloadable game that highlighted the impact of piracy on the music industry, developed in partnership with UK Music.

The combined effect of all the campaign related activity translated into a reach of 14.7 million within 2013/14, far exceeding its original target.

Music Inc

The development of Music Inc was the highlight of the IPO's educational work for young people. Working in partnership with UK Music and Aardman Animations, the goal was to create a game that showcased the various stages of music production and highlighted the very real issues caused by piracy. Within the game players select artists and nurture their talent in their quest to top the charts and make money. Through this innovative approach to reaching a younger audience we were able to demonstrate the huge variety of roles within the music industry, and the value each brings to the creative process.



The launch day generated a huge buzz. Positive broadcast media generated a reach of over 1 million. This included spokesperson Oritse Williams, former member of the hugely successful JLS, appearing on Daybreak and Sky News, and the then Minister for IP, Lord Younger, being interviewed for Radio 1's Newsbeat. In addition to this, there was a further reach of over 6 million via social media.

The game has been very successful. Since launch there have been over 191,000 downloads, with 77% of players making choices within the game to tackle piracy – demonstrating a recognition of the problems piracy causes.

Chapter 6: Enforcement

Individual creators and businesses need to be able to enforce their rights appropriately. To facilitate this, the enforcement framework must be effective and affordable, so that rights holders can access appropriate remedies for a wide range of infringing activity. In any dispute there will always be more than one party and all parties need to be able to resolve disputes cost-effectively. This report covers April 2013-March 2014 and throughout this period the IPO was preparing with international partners for a major Enforcement Summit, which took place in June 2014.

Dispute resolution

It is inevitable that disputes will occasionally arise over IP. When this happens, it is essential for all involved that they can be resolved as quickly and cost-effectively as possible. This means providing alternatives to potentially lengthy, expensive, litigation and giving businesses the tools to resolve disputes more easily. Businesses want to invest their time and money in growing their business, not fighting legal disputes.

This year the IPO has promoted alternatives to litigation, including mediation. Mediation can allow parties to a dispute to resolve their differences more quickly and at lower costs than would be possible through the courts. It also opens up the possibility of reaching an agreed outcome that is beneficial to both parties, possibly reaching a licensing agreement or similar arrangement. The IPO offers a mediation service which is well respected, although not heavily used. Over 2013/14, the Office has implemented some changes to our mediation service, including offering the option of shorter mediation sessions with lower cost or telephone mediation for more straightforward cases.

In 2013/14, the IPO also began work to expand our Patent Opinions service. The Patent Opinions Service was set up in 2005 to help businesses resolve patent disputes by providing a quick and affordable assessment relating to the validity or infringement of patents. Although non-binding, an opinion can assist in resolving a dispute before it escalates to full litigation before the courts. This service has been very successful, so the IPO has extended the service to provide opinions on a much wider range of issues. The service will also now offer opinions in relation to Supplementary Protection Certificates which have been granted for pharmaceutical products. The IPO began offering the expanded range of opinions on 1 October 2014.

As discussed in Chapter 3, the Government introduced changes in the Intellectual Property Act 2014 to simplify designs law so that the IP framework better supports innovation. The new Act establishes a Designs Opinions Service, similar to that currently offered for patents. These will enable businesses to make protection and enforcement decisions more quickly. Whilst most of the designs provisions came into force in October 2014 the Designs Opinion Service, will take longer to implement, due to the need properly to consult users. The IPO will be progressing this work in the coming year.

The Impact of Lookalikes

Well-known brands, and brand owners' groups, have long argued that they are not able to adequately enforce their IP rights against lookalike packaging under UK law. To ensure that any changes in this area were based on a solid evidence base, the IPO

commissioned a study to review the legal framework for possible measures to counteract unfair competition, how consumers respond to lookalike products, and the possible impact of these products on branded goods. This was published in May 2013²⁸.

The available evidence on lookalikes does not point to a clear course of action. The effect on consumers appears overall to be weak, and it does vary across different types of product. There is some evidence that consumers surveyed who had deliberately purchased a lookalike product viewed the experience as positive, while there was a fairly even split between positive and negative experiences for those who had mistakenly made the purchase. In some product markets, lookalikes appear to result in lost sales for brand owners.

The study suggested that a possible remedy could be to give brand owners the right to bring an action themselves under the Consumer Protection from Unfair Trading Regulations. The Government consulted on this option in the summer of 2014.

The Unified Patent Court (UPC)

Following agreement in 2012 on a new unitary patent for Europe and a new unified patent court (UPC) the focus of work has turned to the implementation of the UPC Agreement. Once the UPC is in operation, patents will be able to be defended in a single court rather than be litigated country-by-country. This should make it easier for rights holders to exploit patents on a European scale. The UPC offers a means to enforce a patent across most of the EU Single Market and this may increase the perceived value of owning and enforcing patents in Europe. For example, a Europewide injunction is likely to be of greater value than individual injunctions granted for separate EU Member States by the relevant national courts. Patent owners may also see a greater return when licensing a unitary patent, or even a bundle of European patents. As stated in the Summary Statement of Innovation of the Implementation of the UPC and UP Regulation, the changes are expected to lower the cost of Europewide patenting, potentially reducing the cost of protecting innovation, and could increase the returns on, and incentives to, innovate²⁹. The regulation will foster a single market for patents and could make Europe more attractive to inward investment which could stimulate more research and development within the UK.

In 2013/14 the Preparatory Committee has taken significant steps towards the establishment of the UPC, and laid the foundations for many decisions which will be made over the course of 2014/15. Progress has been made towards ratification by many Signatory States, with five that have already completed their ratification process: these are Austria, France, Sweden, Belgium and Denmark. The Preparatory Committee has also announced the first regional division of the Unified Patent Court between Estonia, Latvia, Lithuania and Sweden.

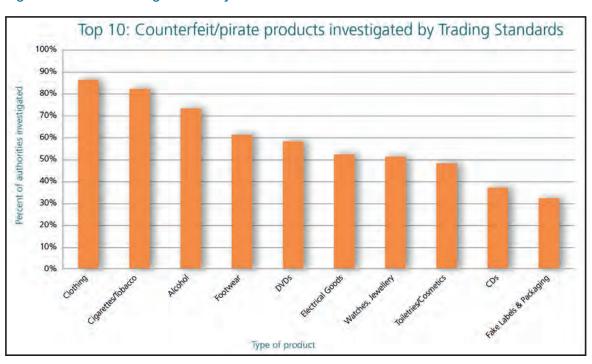
²⁸ Phillip Johnson, Johanna Gibson, Jonathan Freeman (2013), The Impact of Lookalikes. Similar packaging and fast-moving consumer goods https://www.gov.uk/government/publications/the-impact-of-lookalikes

²⁹ https://www.gov.uk/government/consultations/secondary-legislation-implementing-the-unified-patent-court

The process for selection of judges for the court was started with the receipt of over 1000 expressions of interest for legally and technically qualifies judges, along with the agreement of basic principles for training for judges and the opening of the Training Centre in Budapest. Another important step for the court was the publication of the 16th draft of the Rules of Procedure following a three month consultation in autumn 2013. The UK leads the IT working group, and an achievement of 2013/14 was the commencement of appointment of specialists in IT procurement to compile the necessary specification for a call for tender for the UPC's future electronic filing and case management system. This has meant that the 2014/15 year can focus on the tender process and testing of a prototype.

IP crime

Figure 10: Counterfeiting and Piracy



Source: IP Crime Report 2013/14

Occasionally infringement of IP will be on a scale that is criminal in nature. In these situations there must be appropriate enforcement by authorities. This is why, in September 2013, the IPO, in conjunction with the City of London Police set up the Police Intellectual Property Crime Unit (PIPCU). The IPO provided a total of £2.56million in to fund the unit for its first two years of operation. The unit has already demonstrated some significant successes. PIPCU are targeting what are believed to be organised crime groups who profit from the reputation of well known and established brands by producing poor quality counterfeit goods. At the end of March 2014 the unit were investigating IP Crime worth £28,869,991.

PIPCU – a case study

In March 2014 PIPCU dismantled a suspected criminal group believed to be importing and selling a wide range of fake fashion goods, in a joint operation with the Intellectual Property Office (IPO) and the National Crime Agency (NCA).

The investigation was launched by PIPCU, following a referral from an international law enforcement partner. The two men, aged 43 and 48, are believed to be part of a criminal operation involved in the importation and distribution of high-end counterfeit products.

Trading Standards Officers from Liverpool City Council and brand protection officers from brands believed to be affected, accompanied detectives on the investigation and a large number of counterfeit goods including; cosmetics, sunglasses, boots and handbags, were seized from two storage containers and a further commercial property.



DCI Andy Fyfe of PIPCU said "Crime like this is costing the UK economy hundreds of millions of pounds each year and is putting legitimate businesses in danger. Together with our partners in both the UK and overseas, PIPCU will continue to tackle IP crime and those who break the law."

The IP Crime Group

During 2013/14, the IPO continued to provide a secretariat and other support for the IP Crime Group. This group, Chaired by Chief Constable Giles York of Sussex Police (the Association of Chief Police Officers lead for intellectual property), brings together industry, government and enforcement agencies to share knowledge about emerging threats and innovative interventions being used successfully to tackle IP crime.

One of the key products of the group is the annual IP Crime report, and the 2012/13 report was well received by industry and enforcement agency partners. The report, detailing the state of play for IP crime in the UK and the interventions being used by the public and private sectors to tackle it, is the only place where this information is drawn together.

Criminal sanctions for designs

It is essential that the legal framework provides appropriate sanctions to act as a deterrent against infringement. Following considerable consultation with all interested

parties, the Intellectual Property Act 2014 introduced criminal sanctions for intentional copying of registered designs. These new enforcement provisions should enable designers to better protect their own designs, and deter potential infringers from copying other people's work.

Case Study

Burgon and Ball is a manufacturer of a range of high quality garden and agricultural tools, employing some 45 people. It has a reputation for being innovative in its field, and in recent years, invested in in-house design, to enhance that reputation and build the business even further – an unusual move in that area.

In 2008, its new range of planters won an award at the industry trade show for the Best New Product, with the attendant publicity. The following commercial success meant that sales approached $\mathfrak{L}^{1/2}$ million in the first year.

In the following year, a much larger competitor brought out an almost identical range, of a lower quality. This, together with the reduction in costs afforded by the larger company's buying power, meant that Burgon and Ball lost a lot of business: they believe they lost anything from between £250,000 to £750,000. Unfortunately, the success of Burgon and Ball's designs meant that this was not an isolated instance: their designs have continued to be infringed - and often with identical copies - which has forced the company to divert essential resources away from the business of growth and towards its rights.

Now that the Intellectual Property Act 2014 has introduced a criminal sanction for the intentional copying of registered designs Burgon and Ball hope that this will help deter others from the blatant copying that they have so far experienced.

The International Agenda

Tackling IP crime (counterfeiting and piracy), protecting the rights of creators, rights holders and consumers, is top priority for governments around the world. The IPO recognises that the most effective way for us to achieve a real reduction in IP crime is to work with international partners. In 2013/14, a great deal of time was spent preparing to host the world's first International IP Enforcement Summit. The Summit was a joint initiative developed with the European Commission and the Office for Harmonisation in the Internal Market (OHIM) and hosted by the IPO in Central Hall Westminster.

The summit aimed to unite global efforts to honour the contribution of our entrepreneurs, innovators and creators through a more effective global enforcement environment. Attended by over 300 delegates representing governments, policy makers, enforcement agencies and multinational businesses from over 35 countries, the programme included IP in the online environment, customs enforcement in Europe and across the world, and the coordination, tools and techniques to tackle IP infringement. Speakers presented their view of the international IP enforcement

challenges and measures needed to tackle IP crime in an age of global trade and digital economies.

The Summit took place in June 2014 and has reenergised the enforcement debate in Europe ahead of the European Commission's July 2014 IP Action Plan. The Summit put the UK firmly at the forefront of the international fight against IP crime – leading the way in best practice solutions and sharing our world leading expertise. The Summit partners have produced a report of the summit proceedings and a communiqué that sets out the next steps. For more information, see the IP Summit website at: https://oami.europa.eu/ohimportal/en/international-ip-enforcement-summit

Bilateral Relations

Our international bilateral policy work also continued during 2013/14. For example in China, we facilitated an exchange of judicial expertise with High Court judges (which address patent holders' concerns in Chinese courts). We also joined the Prime Minister's delegation to Beijing in December 2013, and secured an agreement with the Chinese office to hold a Minister–led IP Symposium in Beijing, to provide UK companies a rare opportunity to engage with Chinese policy makers.

In September 2014. Baroness Neville-Rolfe led an influential delegation including a High Court judge, senior IPO officials and British IP and business professionals to participate in the UK-China IP Symposium. Visiting eight cities in five days, the team engaged with senior Chinese IP policymakers and confirmed the UK as China's leading international partner on IP reforms. The IPO secured commercial outcomes for British businesses such as an agreement between Alibaba and the China Britain Business Council relating to online enforcement mechanisms and facilitated the establishment of revenue exchanges benefiting British authors, publishers and visual artists.

ANNEX: RESEARCH REPORTS PUBLISHED BY THE IPO IN 2013/14

May 2013	The Impact of Lookalikes
	Phillip Johnston, Johanna Gibson, Jonathan Freeman.
	The study reviewed the legal framework for possible measures to counteract unfair competition, the behavioural effect of lookalike products on consumers in supermarkets and the possible impact on sales of producer-owned brands of 'lookalike' products.
May 2013	Understanding the Collective Bundles of Intellectual Property Rights by Firms
	Christian Helmers, Philipp Schautschick, Georg van Graevenitz, Christine Greenhalgh, Irem Guceri.
	There are two reports. The first presented an exploratory analysis of the use of different types of IPRs as part of an IPR bundle by firms registered in the UK. The second was an initial investigation into the relationship between holders of registered IPRs and growth performance of firms.
June 2013	Patent Backlogs, Inventories and Pendency: an international framework
	Benjamin Mitra-Kahn, Alan Marco, Michael Carley, Paul D'Agostino, Peter Evans, Carl Frey, Nadiya Sultan.
	A joint report by the USPTO and the IPO on the economic and operational impacts of patent application backlogs.
July 2013	A Study of Patent Thickets
	Bronwyn Hall, Christian Helmers, Georg van Graevenitz, C. Rosazza-Bondibene
	The report analyses whether entry of UK enterprises into patenting in a technology area is affected by patent thickets in the technology area.
October 2013	Banking on IP?
	Martin Brassell, Kelvin King.
	Research on the supply of finance to SMEs seeking to grow on the basis of intangible assets.

December 2013	Innovation, Patenting and Licensing in the UK: evidence from the Survey on Innovation and Patent Use
	Ashish Arora, Suma Athreye, Can Huang.
	The IPO commissioned the Survey of Innovation and Patent Use in September 2012 to shed light on the factors associated with expenditures on technology in-licensing and the patenting behaviour of firms that had innovated over the 2009-2012 period.
March 2014	Estimating UK Investment in Intangible Assets and Intellectual Property Rights.
	Jonathan Haskel, Peter Goodridge.
	The report seeks to estimate how much the UK invests in knowledge assets and what proportion of this investment is protected by formal IPRs.

In addition to this research published by the IPO itself, collaborative research partfunded and managed by the IPO led to the following publications by others during the year:

How business can work with universities to generate knowledge and drive innovation; 'Collaborate to Innovate' with Big Innovation Centre

Patent Litigation in Europe, to compare activity in UK, Netherlands, Germany and France; with Centre for European Economic Research, Mannheim.

Trolls at the High Court, looking at the activity of Patent Assertion Entities, by London School of Economics.

Online Consumer Infringement, to provide an authoritative benchmark for consumer activity, by Kantar Media and published by Ofcom.

Intellectual Property Office Online:

Web: www.gov.uk/ipo, Facebook: www.facebook.com/TheIPO.UK, Twitter: @The_IPO

Any enquiries regarding this publication should be sent to: The Intellectual Property Office, Concept House, Cardiff Road, Newport NP10 8QQ,

Tel: 0300 300 2000 Fax: 01633 817 777

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