

Australian Government

IP Australia

Australian Intellectual Property Report 2015





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Welcome to the Australian Intellectual Property Report 2015

As the Parliamentary Secretary responsible for IP Australia it gives me great pleasure to introduce this report which reviews intellectual property (IP) trends and developments in 2014.

Australia has a world class IP system that is consistently ranked in the top tiers across the range of global measures. A well-functioning and effective IP system is important to underpin Australia's innovation, trade and investment efforts and the Government's Industry Innovation and Competitiveness agenda.

According to the World Intellectual Property Organization's 2014 Global Innovation Index (launched in Sydney in July 2014) Australia was ranked 17 out of 147 nations, up two places from the previous year. Furthermore, Australia ranks amongst the top ten nations for innovation inputs, including human capital, research and infrastructure.

In terms of utilisation of the IP system over 2014, this report shows demand for filings varied across the four IP rights. The demand for plant breeder's rights grew three per cent, trade mark filings continued to grow smoothly, increasing two per cent. The demand for patents decreased 13 per cent and designs were down four per cent. These trends reflect a range of factors, both domestic and international, which are explored throughout this report.

Importantly 2014 also saw the release of the first edition of the Intellectual Property Government Open Data (IPGOD) resource. The data includes over 100 years of information on IP rights, including patents, trade marks, designs and plant breeder's rights. All of this information is publicly available on www.data.gov.au. It is an invaluable resource for anybody working in the IP arena and I hope it will be widely used.

I hope you find both this report and the accompanying data releases informative and useful.

The Hon. Karen Andrews MP Parliamentary Secretary to the Minister for Industry and Science

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1. Introduction

As global markets continue to expand, the role of intellectual property (IP) rights is becoming increasingly important. The greater global demand for intangible assets has increased the need for inventors to seek protection in multiple countries. It is critical that the IP system in Australia adapts to the changing innovation landscape in order to best serve the Australian economy.

IP rights allow owners to temporarily exclude others from using their invention or creation. The existence of IP rights encourages innovation and prevents competitors from imitating products and services. The promotion and protection of IP rights enhances economic growth, while creating new industries and jobs.¹ An efficient IP system benefits innovators and the public.

IP Australia is the government agency that administers IP rights and legislation in relation to patents, trade marks, designs and plant breeder's rights. While copyright is a form of IP it is administered separately by the Attorney-General's Department, and is, therefore, not included as part of this report. IP Australia is responsible for identifying key trends and changes in the international and domestic innovation landscape and contributing to advice to the Australian Government on the development of IP policy. IP Australia participates in international negotiations and cooperation to support the global IP system, and promotes awareness of the IP system.

The Australian Intellectual Property Report is now in its third edition. The purpose of the report is to promote awareness and deliver the latest IP statistics. This report provides a collation of data and information about IP in Australia, and internationally, and how Australia compares against other countries. The report focuses on the latest developments and evidence on IP, and includes a short introduction to each right administered by IP Australia in the appendix, for reference. The second release of IP Government Open Data, used in this report, was also published alongside this report.²

The data, graphs and statistics used in this report can be found online at <u>www.ipaustralia.gov.au/economics</u>. We welcome your comments and queries about this report. Please contact us by:

- email : ipreport@ipaustralia.gov.au
- telephone: 1300 65 1010 (within Australia) or +61 2 6283 2999 (outside Australia).

Goods & Services

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There was no unifying trend in how the Australian intellectual property (IP) rights system was used in 2014. Applications for plant breeder's rights and trade marks increased relative to 2013, while applications for patent and design rights decreased. This outcome serves to highlight that there is a range of different factors, both domestic and international, that influence filings for different IP rights in Australia.

Figure 1 details information regarding the top three filers in Australia for each of the four IP rights. Australian residents are the largest filers in three of the four rights: trade marks, designs and plant breeder's rights. The United States (US) is the largest filer of patent applications in Australia. Patents is the only IP right that has a single non-resident origin filing more applications than residents. The US is the second largest filer across the remaining IP rights, excluding patents, where Australia is the second largest filer. As depicted in the bottom row of Figure 1, in 2014 the third largest filer varied across the IP rights. No unifying trend in 2014



Figure 1: Origin of IP rights filings in 2014 and change from 2013

Patent filings decreased 13% **Patents:** IP Australia received 25 947 standard patent applications in 2014, a decrease of 13 per cent relative to 2013. This result was driven disproportionally by a reduction in applications made directly to IP Australia, which accounted for 59 per cent of the decline.³ The decrease in filings may be attributed to the effects of the *IP Laws Amendment (Raising the Bar) Act 2012* that took force in 2013. This law was designed to increase the inventive threshold required for an innovation to be granted as a standard patent. The most immediate and observable impact of this policy was a rush of applications in the lead up to the implementation date and a record number of standard patent applications for 2013.⁴





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Due to the higher inventive threshold, it is not surprising that there were fewer standard patent applications in 2014. It can reasonably be assumed that the historically high number of applications in 2013 was caused by the early filing of applications which otherwise would have been filed in 2014.

Applicant origin: The decline in standard patent applications is further echoed in the number of standard patents applied for by Australian residents. On average, applications by Australian residents comprise around 10 per cent of total applications in a given year. In 2014, 1 979 standard patent applications were made by Australian residents. This was a decrease of 35 per cent from the previous year and the proportion of applications made by Australian residents fell to eight per cent.

Amongst non-resident applicants, the US remains the largest filer, filing 11 551 applications in 2014.⁵ Although the US remains the largest non-resident filer, their filings in 2014 decreased 12 per cent. Mirroring Australian trends, US applicants rushed to file prior to the implementation of Raising the Bar, driving US applications to grow 16 per cent in 2013.

The next top filers in 2014 were Japan (1 682), Germany (1 457) and the United Kingdom (UK) (1 153). Similar to the US, these countries all submitted fewer applications in 2014 than in 2013. Most notable was Germany, filing 15 per cent less. Collectively these top four origins made up 66 per cent of non-resident applications and 61 per cent of all standard patent applications in Australia.

Patent Grants: In 2014 the number of patents granted by IP Australia was 19 304, an increase of 13 per cent from the previous year. Of these, 94 per cent of patents were granted to non-residents and six per cent were granted to residents.

Patent grants increased 13%

The largest

applicant

patent

remains

the US

Table 1: Patents granted to residents and non-residents 2011-14

	2011	2012	2013	2014
Resident	1 262	1 311	1 110	1 199
Non-resident	11 611	16 413	16 002	18 102
Total	17 873	17 724	17 112	19 304

There are three main stages in the patent application process. The first stage is the time from filing an application to the request for examination. Australia operates a deferred exam system, where applicants have up to five years to file a request for examination. In 2013 the average number of months between filing an application and requesting an exam was 16.3 months. In 2014 this period reduced by 2.7 months to an average of 13.6 months.

Time from exam request to first report fell an average of 0.9 months The second stage, from exam request to first report, is the only stage that IP Australia has sole control over. In 2014, IP Australia reduced this period by an average of 0.9 months. The third stage is the time from issue of the first examination report to acceptance of the application. In 2014 successful applicants were granted patents on average 14 months after receiving their first report.

Figure 3: Average time periods for the three main stages of the patent process



Provisional applications: Provisional filings allow applicants to claim an early priority date before filing a standard or innovation patent. In 2014, the number of filings for provisional applications increased four per cent to 5 270. Over the past decade their use has been in decline, falling an average of three per cent per annum between 2005 and 2014.

Australians filed 96% of provisional applications Provisional applications are primarily used by Australian residents, who filed 96 per cent of provisional applications in 2014. Over the past decade the percentage of resident and non-resident provisional applications has remained relatively unchanged.⁶ Resident applications were the main source of growth in 2014, increasing five per cent. Non-residents filed four per cent of all provisional applications and the total of non-resident applications fell six per cent from 2013.

The fluctuations in the volume of provisional applications in 2012 and 2013 were most likely driven by Raising the Bar. As provisional applications allow applicants to claim an early priority date, applicants may have filed provisional applications in 2012 anticipating the rush of applications prior to the implementation of Raising the Bar in April 2013.



Figure 4: Other patent applications 2005-14

Innovation patents: After peaking in 2012, the demand for innovation patents has declined for a second successive year, dropping a further nine per cent in 2014.⁷ Resident applications decreased 10 per cent and non-resident applications decreased seven per cent. Applications from the US and Taiwan decreased 30 per cent and 21 per cent respectively, while applications from China increased 17 per cent.

The majority of innovation patent applications are made by Australian residents who, in 2014, accounted for 66 per cent of filings. China remained the single largest source of non-resident applications, with 203 applications in 2014, followed by the US (91) and Taiwan (62). These three countries accounted for 70 per cent of non-resident applications and 23 per cent of all innovation patent applications.

An economic review of the innovation patent system was undertaken by IP Australia in 2014-15 as a follow up to the Advisory Council on Intellectual Property's review of the system.⁸ The economic review examined the relationship between the innovation patent system and research and development expenditure, firm performance, market competition, regulatory costs, the private value of innovation patents, firm survival and system use by small and medium enterprises, as well as individual inventors. Innovation patents declined for a second successive year Non-resident design applicants recorded new peak **Design rights:** IP Australia received 6 596 design applications in 2014 with applications decreasing four per cent compared to 2013. This decrease can be entirely attributed to fewer applications from Australian residents (down 353), as non-resident applicants increased marginally to record a new peak of 3 966 applications (up 60). This stands in contrast to 2013, when resident filings were the highest on record. Growth in non-resident applications has been positive for the previous four years and remained positive at two per cent in 2014.



Figure 5: Design applications by origin 2006-14

According to Lim et al (2014) the role of IP rights in the market for designs is limited.⁹ Buyers and sellers in the market view designs as a service that is co-created. As IP rights protect the artefact, not the service, IP rights are perceived as a secondary issue in the marketplace. This view of design rights provides insights into the low volume of design registrations relative to patents and trade marks.

Design rights are only enforceable once examined and certified. Until there is a need to enforce design rights, applicants will avoid voluntary examination and its associated fee. Coupling this with the market's perception of design rights could explain the low number of certifications relative to registrations.



Figure 6: Design registrations and certifications 2006-14

Plant breeder's rights (PBR): The number of PBR applications received in Australia increased in 2014 from 330 to 341. Australian residents made 137 applications and represented the single largest country of origin in 2014. The number of applications from non-residents accounted for 60 per cent of applications, increasing four per cent from 2013. Driving non-resident growth was Germany (up 20) and France (up 19). The largest sources of non-resident applications in 2014 were the US (76), Netherlands (41) and France (24), making up 41 per cent of all applications. 60% of PBR applications by non-residents



Figure 7: Plant breeder's rights applications by origin 2005-14

IP Australia registered 202 PBRs in 2014, a decrease of 15 per cent from 2013. Resident and non-resident registrations declined 23 per cent and six per cent respectively in 2014. Fewer registrations were granted to residents of the UK and the Netherlands. The largest receivers of non-resident registrations were the US, the Netherlands and New Zealand, receiving 64 per cent in 2014.

Plant varieties are mainly ornamental breeds

The development of plant varieties has largely been in ornamental breeds. Genera are biological classifications of living and fossil organisms. Each PBR application is classified by a genus. Over the past decade the largest genus classification was rosa (roses), followed by prunus (trees and shrubs) and triticum (wheat).¹⁰



Figure 8: Plant breeder's rights registrations by origin 2005-14

Trade marks: The number of trade mark filings has grown consistently since 2009. The total growth in trade mark applications since the global financial crisis, from 2010 onwards, was 13 per cent, an average of three per cent per year. In 2014 filings increased two per cent. When a trade mark is filed, protection can be claimed within a set of 45 classes. Since 2007 there have been an average 1.8 classes claimed in each application.

Trade mark filings growing consistently



Figure 9: Trade mark applications 2005-14

In 2014 non-residents filed 35 per cent of applications and residents filed 65 per cent. Growth in resident demand for trade marks was positive in 2014, with demand increasing five per cent, while non-resident demand decreased two per cent. Interestingly, the opposite occurred in 2013, when resident filings were negative (-3.5 per cent) and non-resident filings were positive (8.1 per cent). Driving down non-resident filings in 2014 were the US and China, down 478 (-6 per cent) and 167 (-11 per cent) respectively.

Non-resident filings pushed down by the US and China



Figure 10: Trade mark filings by origin 2005-14

Fewer trade mark applications from 7 of the top 10 filers The most active non-resident applicants in 2014 were the US, the UK and Germany. These top three origins made up 49 per cent of non-resident applications and 17 per cent of all applications filed in Australia. The US alone accounted for 32 per cent of non-resident applications and 11 per cent of all applications. Of the top ten filers in 2014, seven filed fewer applications than in 2013. The most notable decline was the Netherlands, dropping 16 per cent.



3. Australians filing overseas

Patents: Australian residents file more patents overseas than they do domestically. This reflects the jurisdictional nature of the intellectual property (IP) rights system and the size of the Australian market. IP rights are only enforceable within the jurisdiction in which they were granted. Consequently, if an applicant wants to protect their IP in different markets then he or she must submit applications for multiple jurisdictions. This results in a system in which applications are submitted across multiple countries for a single invention.

This can be clearly seen in the number of patent applications filed by Australians in other jurisdictions as reported by the World Intellectual Property Organization (WIPO). In 2013 Australians filed three times as many applications abroad than they filed domestically. Specifically, 9 012 patent applications were filed abroad, an increase of three per cent from 2012, compared to 3 061 domestically. Australians filed three times more patent applications abroad



Figure 11: Australian patent applications filed abroad 2004-2013

Source: World Intellectual Property Organization, IP Statistics data center

Of the top three patent destinations only the US recorded growth

The major destinations for these applications were the United States (US) at 41 per cent, the European Patent Office (EPO) (nine per cent) and China (seven per cent).¹¹ These destinations offer access to the largest markets and often receive more applications than destinations with smaller markets. In 2013 these destinations received 57 per cent of Australian applications filed abroad and 68 per cent of all filings globally.¹² Of the top three destinations only the US received more Australian applications in 2013 than in 2012, increasing two per cent. The EPO and China received five per cent and two per cent fewer applications respectively.



Figure 12: Australian patent applications filed abroad by method 2004-2013

Source: World Intellectual Property Organization, IP Statistics data center

Of the 9 012 applications filed abroad in 2013, 67 per cent were filed using the international patent system known as the Patent Cooperation Treaty (PCT). The remaining 33 per cent were direct applications to destination offices. The share of PCT applications to direct applications is representative of previous years.¹³ According to WIPO, amendments were made to the PCT administrative instructions and PCT Receiving Office Guidelines, implemented in 2013.¹⁴ The amendments aimed to simplify procedures for applicants from all PCT contracting states. The simplified procedures were associated with a five per cent increase from 2012 in global PCT applications. Consistent with the global increase, Australian PCT applications filed abroad grew by two per cent in 2013.

Trade marks: In 2012 and 2013 applications filed abroad have steadily increased. Australian trade mark applications filed abroad increased 10 per cent in 2013, to 16 267 filings. Growth in Australian trade mark applications exceeds the global growth in applications reported by WIPO. In 2012 and 2013 global trade mark applications grew 6.5 per cent and 7.6 per cent respectively.¹⁵ The growth in Australian applications reflects the greater global demand for trade marks.¹⁶ The digital marketplace has increased the importance of brand reputation, exporting brands to a greater number of countries and increasing the need for legal protection.¹⁷

Trade mark applications filed abroad increased 10%



Figure 13: Australian trade mark applications filed abroad 2004-2013

Source: World Intellectual Property Organization, IP Statistics data center

US now the top destination for Australian trade mark filings abroad The top three filing destinations for trade marks in 2013 were the US, China and New Zealand. These destinations received 50 per cent of applications. In 2011 and 2012 China had been the top destination for Australians filing trade marks abroad. In 2013 the US became the top destination, receiving 19 per cent of applications.¹⁸ The shift from China to the US by Australian applicants is consistent with the growth in non-resident applications received in the US and China from across the world. In 2013 non-resident applications grew by 10 per cent and -0.2 per cent in the US and China respectively.¹⁹

Figure 14: Top three destinations of Australian trade mark applications filed abroad 2013







Source: World Intellectual Property Organisation, IP Statistics data center



4. State of play

Patents: In 2014 Australian residents filed 1 979 standard patent applications. Between 2013 and 2014 annual growth in patents filed by Australian residents decreased 35 per cent. Negative growth was recorded in all states and territories. Queensland recorded the smallest negative growth, a decrease of 21 per cent. The two states with the largest populations and economies - New South Wales and Victoria - filed the most patent applications. New South Wales remained the largest filer, with 740 applications in 2014, declining 35 per cent. Victoria filed 470 applications, declining 39 per cent from 2014.

Unlike the total number of patent applications received in Australia, resident applications have not reverted back to pre-reform levels after the implementation of Raising the Bar in 2013. In 2014, 25 per cent fewer resident applications were received than in 2012. Between 2012 and 2014 all states and territories resident filings decreased.

Resident patent applications decreased 35%





Main area of patenting for Australians is human necessities

The Australian Capital Territory remains the largest filer on a per capita basis, filing 137 applications per million residents. The next largest filers, on a per capita basis, were New South Wales (98), Queensland (87) and Victoria (80), followed by Western Australia (78).

In 2014 the most common International Patent Classification (IPC) section for Australian residents was human necessities (26 per cent). Physics (19 per cent) was the second largest IPC section for resident applications followed by operations and transporting (17 per cent). These rankings are broadly consistent across the states and territories. For example, of the largest resident filers - New South Wales and Victoria - human necessities accounted for the biggest proportion of applications (34 per cent and 21 per cent respectively).

In Western Australia, during 2013, fixed construction relating to earth or rock drilling and mining was the largest IPC section. In 2014 the largest IPC section shifted to human necessities and performing operations and transporting (23 per cent each).

Australian industries are defined by the Australian and New Zealand Standard Industrial Classification (ANZSIC). Of the 19 industry classifications, entities in the manufacturing and delivering professional, scientific and technical services industries were the top patent filers.²⁰ Australian manufacturing entities filed patents primarily in the IPC technologies of performing operations and transporting, and human necessities technologies. Australian entities in the professional, scientific and technical services industry predominantly filed in the human necessities, chemistry and physics technologies. **Trade marks:** Resident trade mark applications increased five per cent in 2014. The largest positive growth occurred in Victoria, an increase of nine per cent, while the smallest growth occurred in Queensland, an increase of 0.2 per cent. The only state and territory not to record annual growth was Tasmania (down three per cent) and the Northern Territory (down seven per cent). Resident trade mark applications increased 5%



Figure 16: Trade mark filings by state and territory 2014; with change from 2013

The largest filer of resident trade mark applications is New South Wales, accounting for 36 per cent of resident applications. The second largest filer is Victoria, filing 30 per cent of applications. The smallest filers, the Australian Capital Territory, Tasmania and the Northern Territory, collectively accounted for three per cent of applications.

On a per capita basis, Victoria is the largest filer of trade marks, filing 2 168 applications per million residents in 2014. New South Wales is the second largest origin, filing 1 992 applications per million residents. The Australian Capital Territory remains the third largest, filing 1 635 applications per million residents. Australian trade mark applications per million residents is relatively high compared to the rest of the world. Countries filing more per million residents include Switzerland, China, New Zealand and Korea.

The industry filing the largest volume of trade mark applications in Australia was the professional, scientific and technical services industry. The types of goods and services this industry sought trade mark protection for were advertising, business management and administration; scientific, industrial, design and legal services; as well as apparatus and equipment.²¹



than Just Shovels and Being the Lucky Country', data from 1994 - 2011



5. Reviewing IP systems

As intellectual property (IP) rights become a bigger part of our daily lives, consumers and producers expect the system to evolve. What we have seen in Australia, and indeed globally, is that both society and legislatures are trying to keep up with the pace of technological development, and a number of reviews across the IP system are being undertaken. In Australia alone, we have had three reviews of specific parts of the IP legislation in the last year. These include:

- the recently completed independent review of the whole Designs Act²²
- the Advisory Council on Intellectual Property Review of the Innovation Patent System released on 16 June 2014²³
- the Australian Law Reform Council review of copyright which was tabled in Parliament on 13 February 2014.²⁴

This is in addition to reviews of specific issues related to IP, such as the 2013 Pharmaceutical Patent Review,²⁵ or the Productivity Commission's 2013 Review of Compulsory Licensing of Patenting,²⁶ to mention one of several reviews from the Commission that has involved IP.

This intense activity is an indication of the importance of IP and, as Ian Harper noted in the Competition Policy Review, the 'access to and creation of intellectual property (IP) will become increasingly important as Australia moves further into the digital age'.²⁷

The Competition Policy Review recommended a macro review of the IP system, with the aim of providing an 'overarching IP policy framework or objectives guiding changes to IP protection'.²⁸ The innovation landscape evolves quickly and it is important to understand the factors driving change and ensure the IP system continues to meet the needs of stakeholders. IP Australia welcomes the outcomes of the Competition Policy Review and looks forward to contributing to the Government's Industry Innovation and Competitiveness agenda.



6. Creative wholesaling

To meet the needs of stakeholders, the Australian intellectual property (IP) system must identify key users and adapt to changes in the domestic and international innovation landscape. Patenting activity in Australia provides a rich resource for identifying users of the system and detecting any changes occurring in the landscape.

Over the past decade Australian private investment in IP has increased an average of seven per cent annually. In 2013–14 private investment in IP and housing grew two per cent and five per cent respectively. In comparison, private investment in machinery and equipment, and non-housing construction declined.²⁹ Australian investment in IP products was \$47.8 billion (private investment was \$38.5 billion). Data from the Organisation for Economic Co-operation and Development (OECD) shows firms leading the way in innovation invest more in IP and have done so for many years. Typically, these leaders in innovation operate more in the international value chain.³⁰

Of the firms investing in IP, wholesale trade entities were identified as the third largest filing division.³¹ Patents filed include innovations in a diverse range of products ranging from pharmaceuticals to

Wholesale firms are the third largest patent applicants in Australia

household appliances and telecommunications. This challenges the view that wholesalers are concerned solely with the purchase and sale of goods. The broad range of patent applications filed by wholesalers suggests they undertake research and development, and invest in IP, in addition to purchasing and selling on goods.³²



Figure 17: Standard patent filings by wholesale and retail trade firms

The Australian Bureau of Statistics and IP Government Open Data support the above claim that the wholesale trade division files more patents than the retail trade division, whose primary activity is also the purchase and sale of goods.³³ In addition, compared to the manufacturing and retail trade divisions, in the 2012-13 financial year, entities classified in the wholesale trade division had greater expenditure associated with the development and marketing of new goods.³⁴

Wholesale trade patenting activity suggests these Australian entities are participating in the international value chain, innovating in Australia but outsourcing the production. These entities are focusing on high value add, while outsourcing activities with low value add. The outsourcing of production and assembly allows wholesale trade entities to utilise low-cost manufacturing, freeing resources to improve efficiency and reduce costs via research and development. According to the World Trade Organization and the OECD, entities shift towards activities with increased value add as an economy transitions to a knowledge-based economy.³⁵

Wholesalers innovate in Australia and manufacture overseas



Figure 18: Distribution of technology for wholesale trade (Division F) (by IPC)

Australian entities are participating in the international value chain. Australia's amalgamation into the international value chain is represented by a net export of intermediate goods.³⁶ The OECD has estimated what it calls Trade in Value Added for Australia, which indicates that Australian intermediate goods are used abroad in the manufacture of goods which are then exported.

In 2009 Australia's exports to the United States in value added terms was nearly double its share in gross terms.³⁷ A large proportion of these Australian exports represent firms that invent in Australia, manufacture overseas and sell their products abroad. It is this exporting process that drives Australian firms, such as wholesale trade entities, to invest in IP.

Medical devices technology

Australia 8th most specialised country in the world





Download your copy of the report at: www.industry.gov.au/AustralianMedicalDevicesPatentAnalytics

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7. Research program

One of the ways IP Australia contributes to the intellectual property (IP) system in Australia is via its research program, which seeks to advance the knowledge and evidence base upon which IP policy is built.

To this end, 2014 saw the release of the first iteration of the Intellectual Property Government Open Data (IPGOD). The IPGOD project makes publicly and freely available over 100 years of government administrative IP data held by IP Australia. This includes information on patents, trade marks, designs and plant breeder's rights. This data includes information on each aspect of the application process from application through to the granting of IP rights. The IP data is complemented by a unique set of identifiers that allows IP rights to be linked to individual firms, firm level characteristics and geospatial data. It is hoped that the release of IPGOD will assist policy makers, researchers and interested parties working in IP by enabling a wide range of research projects.³⁸

Also completed in 2014 were more targeted research projects into the market for designs and the medical devices industries in Australia. 100 years of IP data made available through IPGOD The designs project provided insight into the role and use of IP rights by creative industries within Australia. The medical devices project demonstrated how patent activity, technological specialisation and collaboration can be used to illustrate the innovation landscape within a particular industry.

In 2015 there are a number of projects that are due for completion.

While mining is often seen as a low technology industry, Australia's unique environment has meant that the development of specialised technologies and systems is required and a series of lucrative enterprises have been born as a result. Despite this, the narrative around mining is generally not focussed on the technology, innovation or IP that drives the industry today. By investigating innovation trends in the industry, the research will determine who is undertaking innovation, for example the operating miners themselves, publically funded entities or the mining equipment technology services firms.

At the other end of the spectrum is the textile, clothing and footwear (TCF) industry in Australia. This industry has been declining as a proportion of the Australian economy for a number of years. It is expected the future of TCF manufacturing in Australia is likely to be focussed on niche, specialised or advanced products. The demand for these products comes from end-users globally, rather than from low-value commodity products. In this context, it is timely to identify and assess Australia's capabilities in TCF industries. This project will use patent analytics to understand which Australian TCF companies are filing patents, within which technology areas the patents are filed, and where any areas of technological strength lie.

Another project seeks to develop a greater understanding of the role of geographical indicators (GI) in Australia. An example of a GI is champagne, which ensures only sparkling wine produced in the French region of Champagne can use the title. While there is a general understanding of what they are, and how they may be used in an international context, there is little understanding of their relevance in an Australian context. This project seeks to correct this by producing data on potential Australian GIs and investigate the economic impacts of GIs in Australia.

In addition to the work due for completion in 2015, IP Australia will also commence several new research projects. The following areas will be the focus of research projects throughout 2015 and 2016:

• investigating the relationship between IP activity and the economy

- the evolution of the IP system and the changing nature of the innovation landscape domestically and internationally
- emerging ways of trading IP rights
- productivity analysis.

The aim of this research is to evaluate the economic impact of various components of the IP system, in order to assist evidence based policy decisions within IP Australia and other commonwealth agencies.

IP Australia's procurement plan is published annually, with major procurements announced through our reporting structures.³⁹ Academics and service providers who would like to be updated on research tenders can email ipreport@ipaustralia.gov.au.

Image: LTRS IP IN QUOTATION BALLOON Lodgement Date: 07-AUG-2006 Registered From: 07-AUG-2006 Acceptance: 21-NOV-2006 Advertised: 07-DEC-2006 Advertised: 07-JUN-2007 Registration 07-JUN-2007 Renewal Due: 07-AUG-2016 Class/es: 41 Status: Registered/Protected Kind: n/a Type of Mark: Composite Series Owner/s: The Crown in Right of the bomminum and the maintener C/- IP Australia.

Trade mark number: 1128057 (IP Australia owned)

trading ideas

Appendix: The four IP rights

IP Australia is the Australian government agency that administers intellectual property (IP) rights and legislation relating to patents, trade marks, designs and plant breeders' rights. The Attorney-General's Department administers copyright separately.

The economic logic behind all IP rights is to promote innovation and new investment in ideas by giving inventors and innovators exclusive commercial control over their work for a limited time. IP rights provide protection only in the countries that grant them, and it is worth briefly illustrating what each right does in Australia. The information provided below is a summary of information pertaining to each right. Applicants should refer to the IP Australia website and fee schedule for full information at www.ipaustralia.gov.au.

A. Patents

A patent is available for all types of innovation - as long as nothing similar has been invented anywhere else in the world. A device, substance or process can be patented if it is proven to be new, inventive and useful. For a patent to be successfully granted IP Australia must examine it and the invention must also:

- be novel meaning the idea or technology cannot already exist anywhere else yet
- be patentable subject matter, as some things cannot be patented⁴⁰
- surpass an 'inventive step' so that invention is not obvious or minor
- have a specific, substantial and credible use.

An Australian patent holder can exclude anyone else from using the patented technology in Australia. This exclusion can apply to manufacturing a product using the technology, as well as selling that technology and any commercial activity around it.

Patent application fee: \$370 (electronic); \$470 (paper)

Total cost to apply, including attorney fees: \$8 000+

Duration: 20 years

Renewal: every year

The innovation patent

In Australia, you can get an innovation patent, also known as a utility model, which has a lower application fee and does not require examination unless you need to enforce it. Innovation patents last for up to eight years, and are a quick and relatively inexpensive way to obtain protection that is similar to a standard patent.

Provisional patent applications

It is also possible to file a provisional application for either a standard or innovation patent. This type of application offers no protection other than an option to claim a priority date in a later patent application. All provisional applications lapse 12 months after filing.

B. Design rights

A design right protects how something looks and can include the shape, configuration or pattern that gives a product a unique visual appearance. If the design is new and distinctive, it can be registered with IP Australia. To enforce a design right, it must be successfully examined, meaning it must be:

- a new design in both Australia and globally
- distinctive from any other published design, online or in circulation.

A registered design that has been certified after examination allows the holder to exclude others from using the design in any commercial way in Australia. Examples of registered designs include the look and shape of a mobile phone, the design of a unique windsurfer or innovative fishing gear.

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Design application fee: $250 (electronic); $350 (paper)
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Optional examination fee: \$420

Duration: 10 years

Renewal: once, after five years

C. Plant breeder's rights

Plant breeder's rights (PBRs) are used to protect new varieties of plants that are distinguishable, uniform and stable. In Australia, PBRs include water-efficient wheat and pink iceberg roses.

As well as meeting a set of criteria to pass examination, PBRs must also:

- be distinct from other varieties of the same plant
- be uniform and stable
- not have been exploited or sold outside certain time limits
- have an identified breeder and an acceptable name.

A PBR gives the owner exclusive rights to exclude others from commercially using and selling a variety. Consequently, it provides the opportunity for the right holder to collect royalties while directing the production, sale and distribution of varieties. Other plant breeders can freely use parts of a registered PBR to experiment with, use non-commercially or develop a new variety for commercial use. Plant breeder's right application fee: \$345

Examination fee: \$1 610

Duration: 20 years

Renewal: every year

D. Trade marks

A trade mark can be a trade name, logo, sound, product colour, scent or any other distinctive mark within a particular class of goods and services. In Australia, there are 45 distinct classes. Registered trade marks are legally allowed to use the ® symbol, but to be registered in Australia, a trade mark must:

- be distinct in its class, and not cause confusion with other marks
- be non-descriptive and non-promotional, so 'good shoes' cannot be registered
- avoid common usage words as the whole trade mark.

A trade mark allows the holder to exclude others from using the registered mark in the same business class. Different firms can have the same trade mark in different classes, such as the 'Lotus' trade mark name which is used by software, automobile and door companies in Australia.

Trade mark application fee: \$120 per class (electronic); \$220 (paper)

Duration: perpetual

Renewal: every 10 years

End notes

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2 The second release of IP Government Open Data can be found at http://data.gov.au/ dataset/intellectual-property-government-open-data.

3 Typically, the number of applications made through an international filing for national phase entry via the Patent Cooperation Treaty (PCT) outnumbers direct filings three to one.

4 In 2013 standard applications grew 13 per cent. IP Australia, Australian Intellectual Property Report 2014, Canberra, 2014 (page 8).

5 11,551 applications is equivalent to 45 per cent of all standard patent applications received in Australia in 2014.

6 Resident share of applications over the past decade ranged between 94 and 97 per cent.

7 In 2013 the demand for innovation patents decreased 10 per cent.

8 The full review can be found at <u>http://www.acip.gov.au/pdfs/ACIP_Final_Report_-</u> <u>Review_of_the_Innovation_Patent_System.pdf.</u> Advisory Council in Intellectual Property, Review of the Innovation System – Final Report, Canberra 2014.

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10 Source: IPGOD – 403, IP Government Open Data , (January 2015 release). Please note this data is for the years 2004-2013. An updated 2014 data set was published with the Australian Intellectual Property Report 2015 on <u>www.data.gov.au</u>.

11 From WIPO IP Statistics Data Center (Dec. 2014 update): indicator 1 "Total patent applications (direct and PCT national phase entry)"; count by filing office and applicant's origin; 2003-2013. These data are collected by WIPO from each patent office individually. The available and published data are typically lagged by two years.

12 WIPO IP Statistics data center (Dec. 2014 update): Indicator 1 "Total patent applications (direct and PCT national phase entry)"; Total count by filing office; 2003-2013.

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22 Advisory Council on Intellectual Property, Review of the Designs Systems, Canberra, 2015, <u>http://www.acip.gov.au/reviews/all-reviews/reviews/resigns-system/.</u>

23 Advisory Council on Intellectual Property, Review of the Innovation Patent Systems, Canberra, 2014, <u>http://www.acip.gov.au/reviews/all-reviews/review-innovation-patent-system/.</u>

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