

WELCOME TO THE AUSTRALIAN IP REPORT 2021

I am pleased to introduce the 2021 Australian Intellectual Property Report

Innovation is a key driver of economic growth and sustains the competitive edge of an economy. An efficient intellectual property (IP) system is crucial to incentivising innovation investment. The analysis in this report, undertaken by IP Australia's Office of the Chief Economist, and underlying data provide vital insight into the way that businesses and individuals engage with Australia's IP system, from within Australia and around the world.

2020 was an unprecedented year, as businesses had to overcome significant challenges occasioned by the COVID-19 pandemic. Through this uncertainty, our IP system has played an important role in providing Australians the confidence to innovate, by ensuring that they can protect their innovations and brands both in Australia and abroad. The new evidence presented here, which shows how manufacturing firms that file trade marks overseas earn more export revenue and are more robust to shocks, underscores the economic importance of IP rights.

The latest IP statistics are an indicator of how social distancing and business lockdowns impacted different sectors and forms of economic activity unevenly. In 2020, Australia saw a record number of trade mark applications filed, driven by a growing number of Australian applications, illustrating the importance that business places on brand protection. Filings of other IP rights fell in 2020 which indicates the impact of global uncertainty on innovation investments.

The Australian IP Report is in its 9th year and this year we include a chapter on the value of copyright to the Australian economy and the industries it underpins, as content consumption habits have changed during COVID-19. The IP report continues to provide a platform for discussion of how best to encourage all kinds of creative activity to Australia's benefit.



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Chapters



Australian Intellectual Property Report 2021 > Chapter 1: Introduction

INTRODUCTION

The Australian Intellectual Property Report provides the latest data on the intellectual property (IP) rights administered by the Australian Government. The report analyses the volume of applications for IP rights filed in Australia, the number of IP rights registered or granted, the geographical origins of applications, and the types of innovations for which applicants have sought protection including those companies that are most prolific in filing IP rights.

For the first time, IP Australia has extracted the time series data contained in the IP Report from our new publicly available data product, IP Government Open Data (IPGOD)¹. The latest version of IPGOD has been developed by IP Australia's Centre of Data Excellence and consolidates the data across patents, trade marks, designs and plant breeder's rights at the applicant level.

The IP report covers activity related to five different IP rights which contribute to the framework conditions for innovation in Australia. Patents (Chapter 2) are legally enforceable rights which protect technological innovations, whether they be a new device, substance, method or process. The patent system stimulates research and development which leads to new and improved products and enables the efficient transfer and use of new technologies. Trade marks (Chapter 3) distinguish companies, products or services in the marketplace. Trade mark protection enables businesses to differentiate themselves in the marketplace and provides consumers with clear identifiers to use in their own communication. Design rights (Chapter 4) protect the appearance of new and distinctive products. Plant breeder's rights (Chapter 5) provide an exclusive right for new plant varieties. Copyright (Chapter 6) protects the unique form of an idea or information extract – the way it is expressed by a creator – founded on the person's creative skill and labour.

In 2020, economic shocks associated with the COVID-19 pandemic and supply chain disruptions induced a sharp contraction in employment and output. This year's IP Report documents some surprising trends in IP activity during this unprecedented crisis. Applications for patents and design rights fell by 2 and 4 per cent in 2020. In the case of designs, this decline can be attributed to a downturn in international trade, whereas the fall in patenting is due to a reduction in Australian filings. Conversely, trade mark applications increased by 8 per cent compared to 2019, driven by Australian applicants seeking increased trade mark protection. To understand these trends, Chapter 3 includes more detailed analysis of trade mark filing activity in the COVID environment and compares this to trends during previous global shocks that impacted global markets.

Chapter 7 introduces new research undertaken by IP Australia into how exporters respond to economic shocks and the role of trade marks in shaping their responses. The research finds that trade mark activity is an important predictor of export entry and performance. After filing trade marks in an export market, Australian exporters tend to expand their exports more in response to tariff reductions and become more resilient to exchange rate fluctuations.

This 9th annual edition of the Australian IP Report provides a factual presentation of the most up-to-date IP statistics, as a basis for ongoing engagement between government, industry, academia and the general public. This year's report is fully digital and includes additional interactive data visualisations you can access to interrogate Australia's IP data. IP Australia's aim is to continue building our IP data into a national asset that can benefit all Australians, and this year's report demonstrates the important insights that can be gained through analysing IP data. We welcome your feedback, comments and insights. Happy reading!

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- Twitter: @IPAustralia_OCE

Endnotes

1. The introduction of IPGOD 2021 as the new data source has resulted in modifications to the time series data that was published in previous IP reports.

Australian Intellectual Property Report 2021 > Chapter 2: Patents

A patent is an exclusive right granted for an invention. Once granted, a patent allows the holder to exclude anyone else from using their patented invention in Australia for a prescribed maximum period of time, up to 20 years for standard patents (or 25 years for some pharmaceutical patents) and 8 years for innovation patents. Patent protection means the invention cannot be commercially produced, used, distributed, imported or sold by others without the patent owner's consent. In exchange for this protection, an invention must be disclosed to the public in full, ensuring public access to new technologies so that follow-on innovation can occur, avoiding wasteful duplication of research effort.

Standard patent applications and grants

In 2020, IP Australia received 29 293 standard patent applications, including divisional applications – a 2 per cent decrease compared to 2019 (Figure P1), but still higher than the 10-year annual average of 28 308 applications.

This filling activity occurred despite the considerable economic impact of the COVID-19 pandemic. Patents are a partial indicator of the output or "success" of research and development (R&D) activity and although R&D investment typically occurs early in the life of a research project it also tends to produce long-run effects on firm patenting. As such, the effects of the economic crisis in 2020 may not be fully observed until beyond $2021.^2$

Over the past decade, standard patent applications have shown an overall upward trend, with 2020 filings 15 per cent higher than in 2011 (Figure P1). A surge in patenting in 2013 anticipated the implementation of the Raising the Bar legislative reforms announced in 2012, which raised the quality threshold for patent grants.3 Growth in applications prior to the reform was followed by a large decrease in applications in 2014, before returning to their overall mild growth trend until 2019.

Standard patent applications may be filed in Australia directly with IP Australia or simultaneously in multiple countries via the Patent Cooperation Treaty (PCT).4 Around 72 per cent of applications in Australia were processed under the PCT in 2020, reflecting the popularity of the PCT system among firms that operate internationally and file patent applications in Australia. Standard patent applications filed via the PCT increased by 1 per cent from their 2019 levels (to 21 129), while direct applications were down 8 per cent (to 8 164).

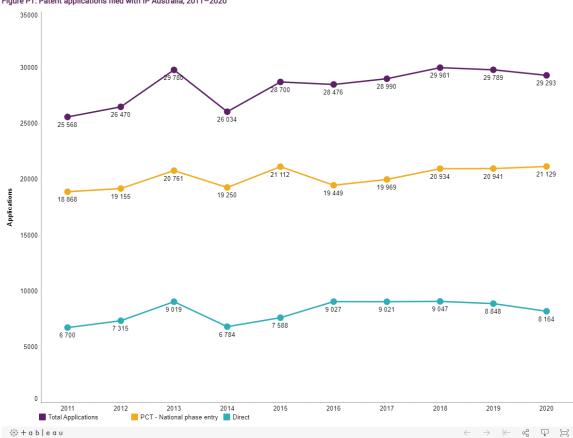


Figure P1: Patent applications filed with IP Australia, 2011-2020

Resident and non-resident filings

Most standard patent applications in Australia are filed by non-residents. In 2020, this trend continued with non-residents responsible for 92 per cent of the total applications filed in Australia (a total of 26 894). Of the non-resident filings, 25 083 (93 per cent) were single-party applications and 1 811 were multi-party applications involving two or more non-resident applicants.

Australian residents were named on 2 399 applications, including 2 227 single-party filings, 107 filings by residents with Australian co-applicants only, and the remaining 65 of mixed origin with Australian and international co-applicants (Table P1). Both resident and non-resident applications decreased from their levels in 2019, by 10 and 1 per cent respectively.

Small and medium sized enterprises (SMEs) accounted for 81 per cent of standard patent applications filed by businesses operating in Australia during 2020, while the remaining 19 per cent were filed by large firms. The SME share of total enterprise applications has been steady over the past decade.

Table P1. Origin of single and multi-party patent applications, 2020



Applicant group	Single party applications	Multi-party ap	plications	Total count of applications per applicant group
		Common origin ^a	Mixed origin ^b	
Residents	2,227	107	65	2,399
Non-residents	25,083	1,811	-	26,894
Total	27,310	1,918	65	29,293

⁸Common origin applications either involve two or more resident applicants or two or more non-resident applicants.

Countries of origin

In 2020, the top five foreign countries of origin for standard patent applications were the United States (applicants from the US were named in 13 122 applications), China (2 358), Japan (1 643), Germany (1 344) and the United Kingdom (1 253). These countries account for 67 per cent of patent applications in Australia. The US remains the major source for patent applications, with US applicants named on 45 per cent of all applications in Australia, a relatively stable share over the past

The number of applications originating from China has grown substantially over recent years. This growth continued in 2020, rising by 25 per cent year-on-year from 2019, which is lower than the 48 per cent increase in 2018–2019. China's share of applications grew to 8 per cent in 2020, retaining its position over the past decade as the second-ranked foreign country of origin for standard patent fillings.

Applications from Japan grew by 2 per cent from their 2019 level, applications from Germany remained stable, while applications from the UK recorded 6 per cent annual growth. Applications from Japan, Germany and the UK accounted for 14 per cent of total applications in 2020.

Leading applicants

The top five international applicants for standard patent applications in Australia originate from the smartphone manufacturing and telecommunication industries (Table P2). Guangdong Oppo Mobile Telecommunications, a leading smartphone manufacturer in China, maintained its top position from 2019 with 435 standard patent applications in 2020, a 39 per cent increase. LG Electronics, a multinational electronics company headquartered in South Korea, remained in second place with 236 applications. Huawei Technologies, another Chinese smartphone and telecommunications giant, climbed one place from 2019 to be ranked third with 231 patent applications.

Among domestic applicants (Table P2), Aristocrat Technologies maintained the top spot for number of patent applications in 2020 with a total of 99 applications. For Aristocrat Technologies this represented a 59 per cent reduction in filings from its 2019 level. Commonwealth Scientific and Industrial Research Organisation (CSIRO) continued in second place with a total number of 46 applications.

Table P2. Top domestic and international applicants for standard patents (incl. divisionals) in Australia, 2020

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Rank	Top domestic applicants	Top international applicants				
	Applicant	Total applications	Rank change	Applicant	Total applications	Rank change
1	Aristocrat Technologies	99	-	Guangdong Oppo Mobile Telecommunications	435	-
2	Commonwealth Scientific and Industrial Research Organisation (CSIRO)	46	-	LG Electronics	236	-
3	Breville	24	new	Huawei Technologies	231	↑1
4	The University of Sydney	20	1 1	Apple	194	new
5	Monash University	18	new	Qualcomm	161	↓2

bMixed origin applications involve at least one resident applicant and at least one non-resident applicant. Mixed origin applications are counted toward the total of resident applications and not the total of non-resident applications.

States and territories

The largest share (36 per cent) of resident applications was filed from New South Wales (NSW) – applicants from NSW were named on 866 applications in 2020 (Table P3). Victoria and Queensland were ranked second and third for total patent applications in 2020. South Australia and Northern Territory were the only state or territory to record positive annual growth, at 14 and 20 per cent respectively.

The Australian Capital Territory (ACT) was the highest performer in terms of patent intensity, with an average of 0.15 patents filed for every 1 000 persons in the state, followed by NSW and Western Australia (WA). In NSW and WA, the ratios were 0.11 and 0.10 respectively.

Table P3. Patent applications, states and territories, 2019-20 5



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	NSW	VIC	QLD	WA	SA	ACT	TAS	NT
Total 2020	866	616	443	276	132	66	22	6
Change, 2019-20	-15%	-5%	-12%	-5%	+14%	-24%	-19%	+20%
Per capita (thousands)	0.11	0.09	0.09	0.10	0.07	0.15	0.04	0.02

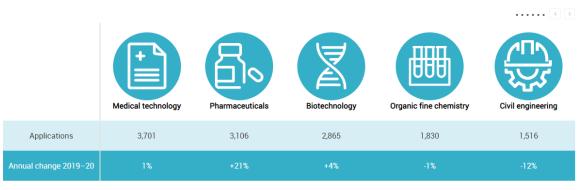
Source: IP Australia; Australian Bureau of Statistics. Australian Demographic Statistics, March 2019. Retrieved 27 January 2020.

Technology classes

Patents protect technologies, which are assigned into technology classes. We analyse application trends across classes using a scheme maintained by the World Intellectual Property Organization (WIPO).⁵

As in previous years, Medical technology was the leading class with 3 701 applications in Australia (Table P4). Applications in Pharmaceuticals were up, by 21 per cent (3 106 applications), as were those in Biotechnology (2 865). Organic fine chemistry (1 830) and Civil engineering (1 516) rounded out the top five technology classes. Computer technology (1 410 applications) and Digital communication (1 363) remained the sixth and seventh most filed classes for standard patent applications in 2020.

Table P4: Top 5 Patent technology classes



The COVID-19 pandemic has generated unprecedented demand for innovations that will help end the crisis or mitigate its costs. These include innovations directed at making public places safer by reducing the likely spread of infection, and digital tools that facilitate more efficient long-distance communication and collaboration. Most critically, studies have shown, the rate of pharmaceutical research on coronavirus vaccines and treatments increased substantially as the pandemic became global in March 2020 and reached an order of magnitude greater than during previous epidemics. New pharmaceutical research has focused largely on quick-to-develop projects involving repurposed drugs, with a high share of drug development conducted by small firms. I

Pharmaceutical patent filings have significantly increased in 2020, well above their historic growth trend of the past decade (Figure P2). While applications in Medical technology remained stable year on year, those in Pharmaceuticals and Biotechnology grew by 21 and 4 per cent respectively. Developing a new drug comes with significant R&D expense, inherent risks and long lead times, but once a new active compound is identified others can often reproduce the drug without incurring the same R&D costs. By providing temporary exclusionary rights, the patent system encourages innovators to perform costly research and bring new products to market, allowing for further development and innovation by other companies.

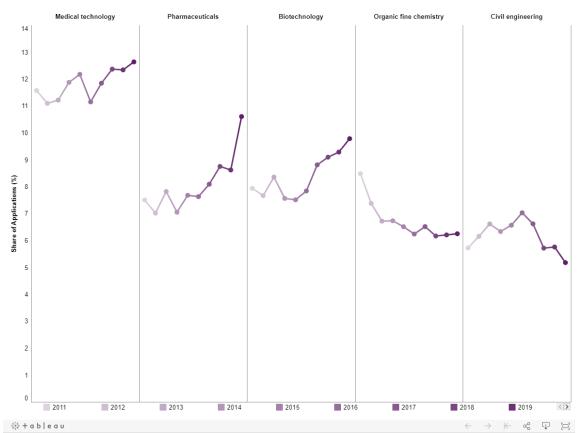


Figure P2: Share of patent applications in medical technology, pharmaceuticals and biotechnology

Notes: Figure P2 depicts change over time in the share of patent applications across five technologies groups. The technologies shown exhibited the greatest change (growth or decline) in application levels in 2019–20; excluded from consideration are low-volume classes, defined as those which on average have received less than 2000 applications per year over the past decade.

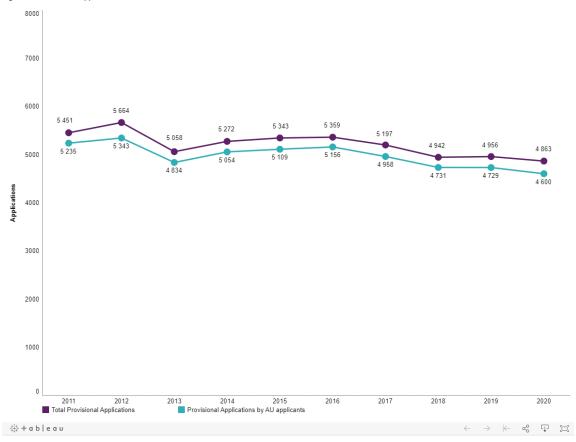
According to innovation researchers, the current pandemic can be expected to change the landscape of innovation and R&D across the science and technology sector. Some technology areas may be adversely impacted, in contrast to those discussed above, for example as a result of research projects having been put on hold during periods of lockdown. In Australia, applications for patents in Organic fine chemistry and Civil engineering fell by 1 and 12 per cent in 2020. R&D tends to be procyclical, increasing during economic booms and decreasing during recessions. 10

Provisional applications

By filing a provisional patent application, applicants can provide an initial disclosure of their invention in order to claim a priority date¹¹ before they file a standard or innovation patent application. Filing the provisional application allows applicants up to 12 months to decide whether they want to file a full patent application. 12

Provisional applications have seen an overall declining trend, falling by an average of 1 per cent per annum over the last 10 years. In 2020, provisional applications dipped by 2 per cent from their 2019 level to 4 863 (Figure P3). Australian residents remain overwhelmingly the primary users of Australian provisional applications, filling 95 per cent (4 620) of such applications in 2020.

Figure P3: Provisional applications filed with IP Australia, 2011-2020



Innovation patents

In Australia, two types of patents have been available, standard patents and innovation patents. The latter provide a shorter (8-year) protection term for ideas that meet a lower inventive threshold than needs to be met to obtain a standard patent.

Over the last few years research by the Productivity Commission and IP Australia's Office of the Chief Economist has shown that the innovation patent was not meeting its policy objective of supporting SMEs. ¹³ After extensive industry consultation, and parliamentary approval, the amendments relating to the innovation patent come into force on 26 August 2021. ¹⁴ The final date to file an innovation patent in Australia is 25 August 2021, and existing innovation patent holders will maintain their rights.

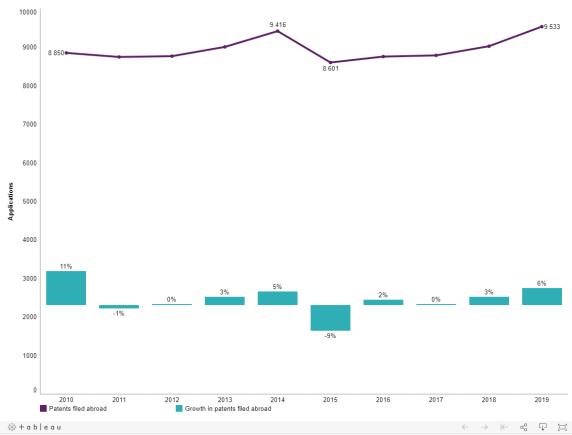
In 2020, we saw a large increase in the total number of innovation patent applications filed in Australia, reaching 4 586, approximately 2.5 times their 2019 level. This total (which includes standard patent applications converted to innovation patent applications) was almost wholly comprised of non-resident applications, which reached 3 573, an increase of 3 times their level from 2019, while resident applications remained relatively stable with 1 013 applications. China and India were the 2 major sources of the surge in non-resident innovation patent applications.

Applications from China totalled 2 640 in 2020, representing an increase of 4.4 times their 2019 level, while India filed 527 innovation patent applications, a 52 times increase on 2019. 15

Australian filings overseas

IP rights granted in Australia do not provide protection in other countries. To protect IP in other countries, Australian inventors must file patent applications abroad. Australians can seek patent protection in other countries by filing applications via the Patent Cooperation Treaty (PCT) or directly with other IP offices. In 2019 (latest data), Australians increased their number of patents filed overseas by 6 per cent, with a total of 9 533 applications (Figure P4), nearly 4 times as many applications as Australians file domestically. Of the total Australian applications filed abroad, 27 per cent were filed directly with overseas patent offices while the remaining 73 per cent used the PCT route.

Figure P4: Australian patent filings overseas, 2010-2019



Source: World Intellectual Property Organization, IP Statistics Data Center. Retrieved 15 January 2020.

The United States continues to be the most popular destination for Australian filings abroad in 2019, with 3 528 Australian-origin applications, accounting for 37 per cent of total Australian filing activity abroad. The next-ranked destinations were the European Patent Office (EPO), China and New Zealand at 10 per cent, 8 per cent and 7 per cent respectively.

- 1. Pharmaceutical substances which have experienced a delay in market approval can receive patent extensions, granting up to 25 years protection.
- Pakes, A., & Z. Griliches (1984), "Patents and R&D at the firm level: A first look." In Griliches, Z. (ed.), R&D, patents and productivity. University of Chicago Press, Chicago: 55–72. For a review of existing literature and new evidence on the gestation lag of patented knowledge production, see: Wang, N., & J. Hagedoorn (2014), "The lag structure of the relationship between patenting and internal R&D revisited." Research Policy, 43: 1275–1285.
- 3. The Intellectual Property Laws Amendment Act 2012 (the Raising the Bar) Act came into effect on 15 April 2013. It has a number of broad objectives, including raising the standards required to support the grant of a patent in Australia and making them more consistent with those applying in other countries. As a result, the 'inventive step' required to receive a patent in Australia is now more closely aligned with that in other major IP jurisdictions.
- 4. The PCT is an international treaty which makes it possible to seek patent protection for an invention simultaneously in multiple countries using a single international application. After a patent application advances through the PCT procedure, it enters the 'national phase' in which patent prosecution will be undertaken by IP Australia.
- 5. The adding-up total of patent applications by states and territories does not equal to the total number filed by residents because for any application filed by more than one state or territory will be counted for each state or territory repeatedly. This applies to other IP rights counted by states and territories.
- 6. The WIPO technology concordance groups various International Patent Classification (IPC) classes and subclasses into 35 technology fields. For details, see https://www.wipo.int/ipstats/en/>.
- 7. Bryan, K., J. Lemus, & G. Marshall (2020), "Crises and the direction of innovation." Available at SSRN: https://ssrn.com/abstract=3587973.
- 8. Gans, J. (2020). The Pandemic Information Gap: The Brutal Economics of COVID-19. MIT Press, Cambridge.
- 9. Foray, D., G. de Rassenfosse, G. Abi Younes, C. Ayoubi, O. Ballester, G. Cristelli, M. van den Heuvel, & L. Zhou, G. Pallegrino, P. Gaule, & E. Webster (2020), "Covid-19: Insights from Innovation Economists," Working Papers 10, Chair of Innovation and IP Policy.
- 10. Foray, D., G. de Rassenfosse, G. Abi Younes, C. Ayoubi, O. Ballester, G. Cristelli, M. van den Heuvel, & L. Zhou, G. Pallegrino, P. Gaule, & E. Webster (2020), "Covid-19: Insights from Innovation Economists," Working Papers 10, Chair of Innovation and IP Policy.
- 11. A priority date establishes the applicant as the first to file a new invention with the IP rights office.
- 12. The priority date is the date used to identify prior art relevant to establishing the novelty and/or non-obviousness of an invention.
- 13. Johnson et al. 2015. The economic impact of innovation patents. IP Australia Economic Research Paper 05. http://www.ipaustralia.gov.au/about-us/what-we-do/economics/
- 14. The Intellectual Property Laws Amendment (Productivity Commission Response Part 2 and Other Measures) Bill 2019 passed in the Senate on 5th February 2019: https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;page=0;guery=BillId:s1216%20Recstruct:billhome.
- 15. A new report published by the United States Patent and Trademark Office (USPTO), "Trademarks and Patents in China: The Impact of Non-Market Factors on Filing Trends and IP Systems," discusses how the high rate of Chinese patent and trademark filings may be influenced by government subsidies and other non-market factors. India has similar policies (https://www.meity.gov.in/content/support-international-patent-protection-electronics-information-technology), but further investigation may be needed to explore the reasons.

<u>Australian Intellectual Property Report 2021</u> > Chapter 3: Trade marks

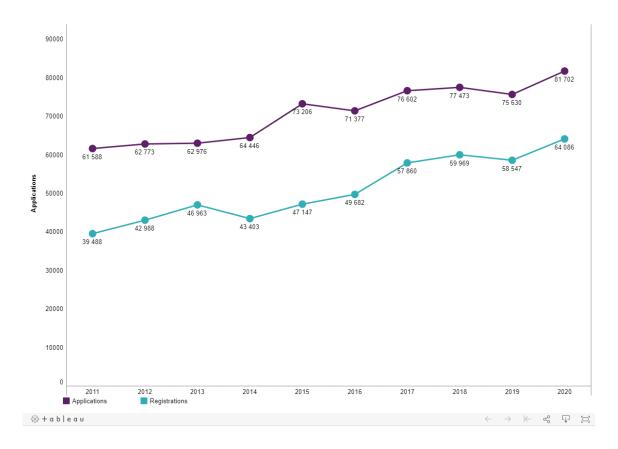
Trade marks are informational signals that distinguish products, services and companies in the marketplace. Registering a trade mark insulates it from copying and infringement for an initial period of 10 years, but trade mark protection can be renewed indefinitely. The activity of creating and registering trade marks is correlated with marketing activity, and with the development of goods and services that are distinct from competitors' offerings and the creator's own products.

Trade mark applications and registrations

In 2020, a total of 81 702 trade mark applications were filed in Australia, an 8 per cent increase on 2019. This increase occurred during the steepest fall in Australia's gross domestic product (GDP) in history – a 7 per cent decline during the June quarter. This trend continued as Australia's economy rebounded in the second half of 2020, resulting in a 1.1 per cent decline in GDP through the year.¹

As with applications, trade mark registrations in Australia have risen with GDP over the past decade but continued to increase in 2020 even as GDP fell. Registrations reached 64 086, up 10 per cent on their level in 2019.

Figure T1. Trade mark applications and registrations, 2011-20



Resident and non-resident filings

The growth in trade mark applications in Australia was due to growth in filings by Australian residents. In 2020, residents were named as applicants on 51 662 trade mark applications, up 17 per cent from 2019. Of these resident filings, 3 818 (or 7 per cent) were multi-party applications — most (3 755) coming from residents with Australian co-applicants only, the remaining (63) being mixed origin, with Australian and international co-applicants. The remaining 47 844 resident applications were from single Australian applicants (Table T1).

In contrast, non-residents accounted for 30 040 applications in 2020, a 4 per cent fall from their level in 2019. The majority (29 677) came from single non-resident applicants, with a smaller number (363) from international co-applicants without involvement of Australian residents.

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Applicant group	Single party applications	Multi-party applications		Total count of applications per applicant group
		Common origin ^a	Mixed origin ^b	
Residents	47 844	3 755	63	51 662
Non- residents	29 677	363	-	30 040
Total	77 521	4 118	63	81 702

^a Common origin applications either involve two or more resident applicants or two or more non-resident applicants.

Small and medium-sized enterprise (SMEs) accounted for 94 per cent of applications filed by organisations operating in Australia during 2020, the remaining 6 per cent were from large firms

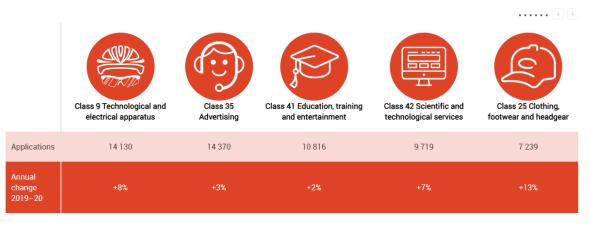
Australian residents are also the leading source of trade mark registrations in Australia. In 2020, growth occurred in registrations from both applicant groups: residents registered 35 033 trade marks (up 11 per cent from 2019) while non-residents registered 29 053 trade marks (up 7 per cent).

Trade mark classes

Trade marks are attributed to specific product and service classes using Nice, an international classification scheme comprised of 45 classes.² Applicants, who can nominate one or several Nice classes for their application, filed 148 104 classes in 2020, an average of 1.8 classes per application.

Since 2002, there has been relative stability in the degree to which trade mark applications are concentrated across classes, with five classes dominating for total fillings (Table T2).

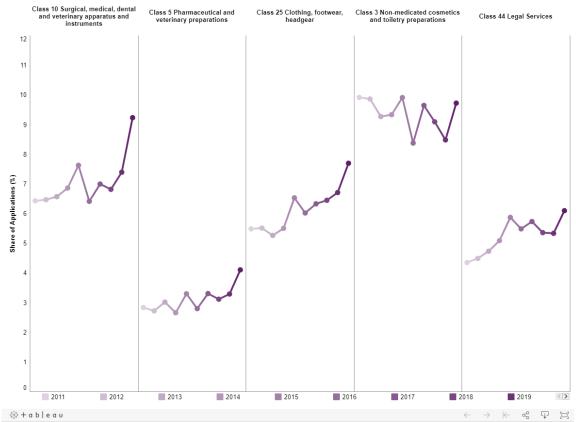
Table T2. Trade mark classes, top 5 in 2020



As shown in Figure T2, the greatest change in classes was observed for Surgical and medical apparatus (+23 per cent from 2019), Pharmaceutical and veterinary preparations (+23 per cent), Clothing and footwear (+13 per cent), Non-medicated cosmetics and toiletries (+13 per cent) and Legal services (+12 per cent). The classes with the highest rates of decline were Medical and veterinary services (-10 per cent) and Transport services (-9 per cent). These trends likely reflect the massive demand for products to help mitigate the COVID-19 pandemic and the uneven sectoral impacts of business restrictions intended to curb infection spread.

^b Mixed origin applications involve at least on resident applicant and at least on non-resident applicant.

Figure T2. Applications for trade marks related to medical and health care products and services increased in 2020



Notes: Figure T2 depicts change over time in the share of trade mark applications nominating five key NICE classes. The classes shown exhibited the greatest change (growth or decline) in application levels in 2019–20; excluded from consideration are low-volume classes, defined as those which on average have received less than 2 000 applications per year over the past decade.

States and territories

In 2020, trade mark applications increased from their levels in 2019 across all states and territories except the Northern Territory (Table T3). Applicants from New South Wales were named in the largest number of applications (18 286), followed by applicants from Victoria (named in 16 105 applications). Victorian applicants led for the most applications per capita (2.2 per thousand people), and for the highest rate of growth in applications (21 per cent) during 2020.

Of the 51 662 resident applications in 2020, a total of 118 were filed by applicants in interstate partnerships. The most common interstate partnerships involved coapplicants from New South Wales and Queensland (28 applications), from New South Wales and Victoria (17 applications), and from Queensland and Victoria (17 applications).

Table T3. Trade mark applications, states and territories, 2019–20



	NSW	VIC	QLD	WA	SA	ACT	TAS	NT
Total 2020	18 286	16 105	9 418	3 558	3 032	712	487	170
Annual change, 2019-20	14%	21%	17%	17%	15%	6%	12%	-6%
Per capita (thousands)	2.24	2.41	1.82	1.81	1.71	1.65	0.90	0.69

Note: In calculating the number of applications per state, a state receives an additional count of one each time at least one applicant from the state is named on an application. As an application can be counted multiple times if it has applicants from multiple states, the sum of counts by state will not equal to total resident applications.

Source: Australian Bureau of Statistics. Australian Demographic Statistics, March 2020. Retrieved 27 January 2021.

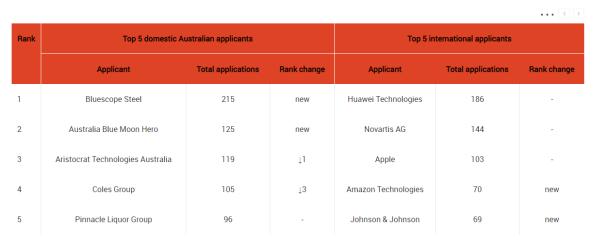
Leading applicants

Table T4 reports the top domestic and international applicants. The applicants come from a broad range of industries, reflecting the broad range of trade mark use.

Leading among the top-ranked domestic applicants, with 215 applications, was Bluescope Steel, a major global manufacturer of steel products. Second-ranked, with 125 applications, was Australian Blue Moon Hero, whose trade marks concentrate in the product class of pharmaceutical and veterinary preparations (including dietary supplements and substances adapted for medical use). Ranked third, with 119 applications, was gaming machine manufacturer Aristocrat Technologies. They were followed by Coles Group, with 105 applications related mainly to advertising and business management methods. Pinnacle Liquor Group, with 96 applications, retained its fifth-ranked position from 2019.

Among the leading international applicants, the top 3 retained their places from 2019. They included two smartphone manufacturers — Huawei Technologies from China and Apple from the US — and Novartis, a pharmaceutical company based in Switzerland. Ranked fourth, Amazon Technologies is new to the top-filer list, after launching in Australia in 2017. Ranked fifth, and also new to the list, was the global healthcare company Johnson & Johnson.

Table T4. Top 5 domestic and international applicants for trade marks in Australia, 2020



Countries of origin

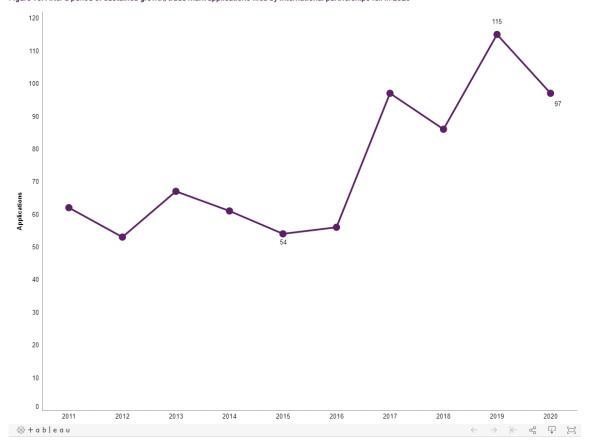
In 2020, as in every year since 2015, the major countries of origin for trade mark applicants (besides Australia) were the United States (US), China, the United Kingdom (UK), Germany and Japan. In total, 8 918 trade mark applications named US applicants, 4 815 named Chinese applicants, 2 215 named applicants from the UK, 1 709 named German applicants and 1 323 named applicants from Japan. Applications fell from their level in 2019 for all of these countries of origin except Japan, filings from which remained stable.

Of the 81 702 total applications filed in Australia, 97 named applicants from multiple countries. The most common international partnerships involved Australians filing with co-applicants from Hong Kong (16 applications), the US (15 applications) and China (7 applications).

Following a sustained period of growth in applications filed by international partnerships in 2015–19, international partnership applications fell in 2020 (Figure T3). The decline may reflect the volatility in international trade introduced by the COVID-19 pandemic.

Trade mark applications can be filed directly in Australia or via the Madrid system, which allows a single trade mark to be filed in multiple countries. In 2020, 16 872 trade mark applications in Australia were filed via this system, equating to 56 per cent of all non-resident applications.

Figure T3. After a period of sustained growth, trade mark applications filed by international partnerships fell in 2020



Australian filings overseas

Before the pandemic, trade mark applications filed by Australians overseas exhibited strong continuous growth. In 2019 (most recent WIPO data), Australian residents filed a total of 20 573 trade mark applications abroad. These contained 47 983 class nominations, up 10 per cent from 2018. The primary destination countries for these filings were China (19 per cent of all class nominations in applications abroad), the US (15 per cent), New Zealand (12 per cent) and the European Union Intellectual Property Office (6 per cent). ³

In Chapter 7 of this report, we present the results of research undertaken by IP Australia which estimates the benefits to Australian exporters from filing trade marks overseas, and the role of trade marks in shaping how exporters respond to shocks, such as tariff changes and movements in bilateral exchange rates.

COVID-19: how has it affected trade mark activity

In 2020 trade mark applications in Australia soared, particularly during periods of lockdown, as governments acted to contain the spread of the coronavirus. This strong growth was out of line with the historical pro-cyclical pattern where applications tend to decrease in periods of economic upper tainty.

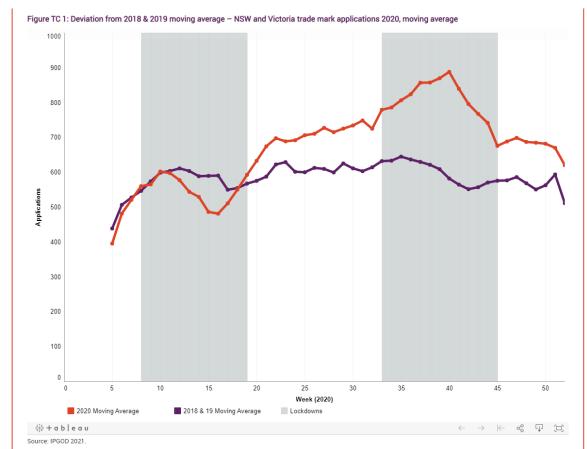
Resident trade mark filings increased above past averages during and after periods of sustained lockdown.

There were two periods of sharp deviation from the past average, particularly in NSW and Victoria; first in March, coinciding with the initial outbreak of COVID-19 in Australia, and again in early August, coinciding with the start of the sustained lockdown in Victoria. The data shows that in the first wave applications dropped but in the second half of 2020, as lockdowns in Victoria were introduced, trade mark applications grew.

Growth in resident filing activity was spread across sectors including health and wellbeing products and services

At the national level of resident applications, three COVID-19 related Nice classes registered strong growth, particularly in the second half of the year. Surgical, medical, dental and veterinary apparatus and instruments (Class 10) increased by 56 per cent; Pharmaceutical and veterinary preparations (Class 5) increased by 41 per cent; and Non-medicated cosmetics and toiletry preparations (Class 3) increased by 36 per cent. However, these classes accounted for only 8.5 per cent of total resident class nominations.

In NSW and Victoria combined – where 9 out of 10 COVID-19 cases occurred in Australia – the growing gap between resident applications in the second half of 2020 and their average from 2018–19 (Figure TC 1) was largely driven by growth across 40 of the 45 Nice classes. Much of the growth occurred within the top 5 classes (outlined in Table T2); however, in Victoria and NSW the growth in these classes well exceeded the national growth rate.

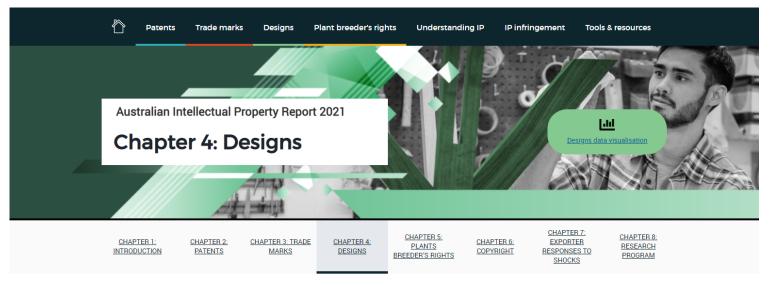


As with Australia's experience, many countries witnessed structural shifts in the pattern of Nice class nominations, with applications in Class 10 (Surgical, medical, dental and veterinary apparatus and instruments) almost doubling in the US, UK and China. Strong growth also occurred in a number of countries for applications in Class 5 (Pharmaceutical and veterinary preparations). These results suggest that, while timed with key events in Australia's experience of the pandemic, the patterns of growth observed in domestic filing activity reflect global trends.

Trade marks in a time of COVID-19

The COVID-19 pandemic has caused a major upheaval to businesses and households through 2020. The data indicates that certain sectors in the Australia economy where trade mark filing is historically the strongest have weathered the pandemic and continued to expand. Eight of the top 10 Nice classes nominated in Australian applications in 2019 grew in 2020 which indicates that businesses continue to value Australia's trade mark system. Trade marks will continue to play an important role in ensuring that one of a business's most important assets, its brand, continues to be protected in Australia and abroad

- 1. Australian Bureau of Statistics. Australian National Accounts, December 2020. Retrieved 12 March 2021.
- 2. For details, see: <a href="https://www.uspto.gov/trademark/trademark-updates-and-announcements/nice-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-current-edition-version-general-remarks-agreement-general-remarks-general-remarks-general-remarks-general-remarks-general-remarks-general-remarks-general-remarks-general-remarks-general-remarks-general
- 3. WIPO IP Statistics Data Center (January 2021 update); Trademark; Indicator: "Indicator: 5 Class count in total applications (direct and via the Madrid system)"; Report type: "Count by filing office and applicant's origin"; Select Origin: "Australia"; https://www3.wipo.int/ipstats/index.htm?tab=trademark, 22 March 2021.



Australian Intellectual Property Report 2021 > Chapter 4: Designs

A design is the form of a product – its features of shape, configuration, ornamentation or pattern which give the product a unique appearance. Design rights provide legal protection to the visual features of a design. Design protection is available for a period of 10 years, and for designs to be eligible for protection they must be new and distinctive. Registering a design provides its owner an exclusive right to commercially exploit the design free from copying.

Design right applications, registrations and certifications

In 2020, a total of 7,165 applications for design rights were filed in Australia, a 4 per cent decrease on 2019. In Australia, design right applications are not substantively examined on registration. As a result, time-series variation in application and registration levels is highly correlated (Figure D1). In Australia, 6 332 designs were registered in 2020, representing an 11 per cent annual decline.

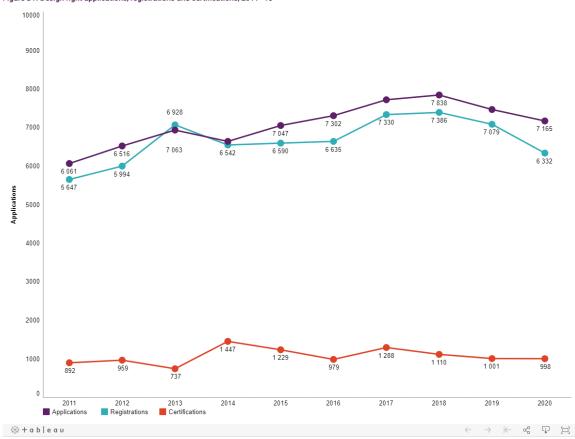


Figure D1. Design right applications, registrations and certifications, 2011-19

To be enforced in Australia, design rights must be certified, meaning they are examined by IP Australia. Certification may be requested by the owner of the design or by a third party (e.g. a design owner's competitor who wants to test the validity of the owner's claim to design protection). In 2020, 998 design rights were certified, a relatively stable level against the provious year.

Resident and non-resident filings

The decline witnessed in design right applications in 2020 was proportional across resident and non-residents. Australian residents were named as applicants on 2 581 design right applications, down by 3 per cent. Ninety five per cent of resident applications listed only one Australian applicant, with a small number of multiparty applications – 113 from Australian co-applicants and 10 from Australians with international co-applicants.

Non-residents accounted for 4 560 applications in 2020, down by 5 per cent from their level in 2019. Most design right applications in Australia come from single non-resident applicants (4 488, or 63 per cent of all filings), with a smaller number (72) from non-resident co-applicants without involvement of Australian residents. The non-resident share of total applications has steadily increased over the past decade, from 60 per cent in 2011 to 64 per cent in 2020.

•		4	P

Applicant group	Single party applications	Multi-party ap	plications	Total count of applications per applicant group
		Common origin ^a	Mixed origin ^b	
Residents	2 478	113	10	2 601
Non-residents	4 489	75	-	4 564
Total	6 967	188	10	7 165

^a Common origin applications either involve two or more resident applicants or two or more non-resident applicants.

Leading product classes

Registered designs are classified using the Locarno System, a classification framework comprised of 32 product categories. Table D2 presents information for the top 5 product classes which received the highest numbers of design applications in 2020. The leading class, Means of transport and hoisting, encompasses all land, sea, air and space vehicles and their component parts.

Table D2. Design classes, Top 5 in 2020

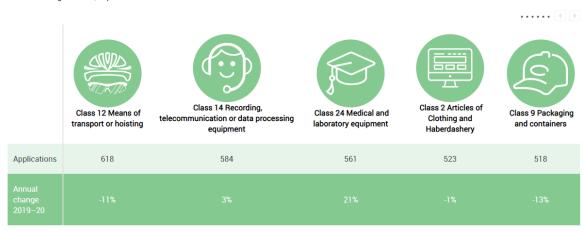
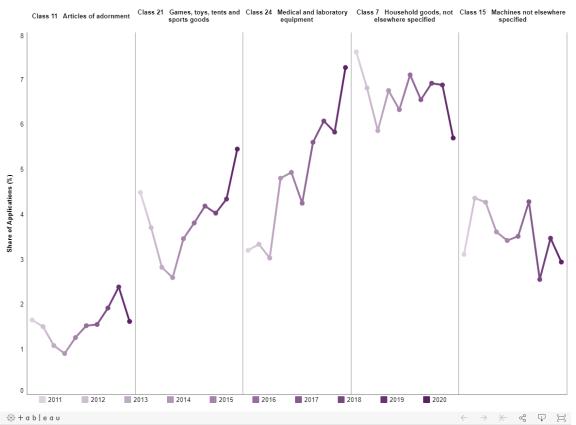


Figure D2 charts change in the share of total applications received by the 5 high-volume classes which registered the highest rates of change in 2019–20. With millions of people at home searching for new forms of entertainment, the COVID-19 pandemic saw increased sales of video games,² and increased participation in both outdoor sports and home workouts. In this time, applications for designs of games, toys, tents and sports goods increased dramatically by 22 per cent from 2019. Applications also increased for designs of medical lab equipment (up 21 per cent), potentially reflecting the increased rate of innovations in products designed to test for, stem or avoid the effects of COVID-19.

Restricted social interaction – including in-store retail trade – may have contributed to a sizeable decrease in applications for articles of adornment (e.g. jewellery), which fell by 34 per cent, and for household goods, down by 19 per cent.

b Mixed origin applications involve at least one resident applicant and at least one non-resident applicant. Mixed origin applications are counted toward the total of resident applications and are not counted toward the total of non-resident applications.

Figure D2. Applications for designs of medical and health care products increased in 2020, as did applications for designs of games, toys and tents, while applications for articles of adornment and household goods fell



Notes: Figure D2 depicts change over time in the share of design right applications nominating five key Locarno classes. The classes shown exhibited the greatest change (growth or decline) in application levels in 2019–20; excluded from consideration are low-volume classes, which on average have received less than 100 applications per year over the past decade.

Leading applicants

Table D3 lists the leading resident and non-resident applicants for design rights in Australia. The list of top applicants from Australia is dominated by producers of textile goods. Australian-based fashion house Zimmermann Wear retained its top position in 2020 with 90 applications. The menswear label Industrie Clothing ranked second with 87 fillings, though primarily for packaging designs. These clothing producers were followed by a private resident, Yajun Hu (44 applications) for desk designs and King Furniture (32 applications). Fifth-ranked was Frankie4 Pty Ltd (28 applications), an Australian shoe brand that has sought both patent and design right protection for their podiatrist-designed footwear.

Table D3. Top 5 domestic and international applicants for design rights in Australia, 2020

						₫ ▷		
	Top 5 domestic	Australian applicant	ts	Top 5 international applicants				
Rank	Applicant	Applications	Rank change	Applicant	Applications	Rank change		
1	Zimmermann Wear	90	-	Philips	109	↑2		
2	Industrie IP	87	new	Google	96	new		
3	Yajun Hu	44	new	Apple	79	↓1		
4	King Furniture Australia	32	new	Xiaomi Mobile Software	78	new		
5	Frankie4 IP 1 Pty Ltd	28	new	Fisher & Paykel Healthcare	75	new		

The list of top non-resident applicants includes well-known multinational corporations operating in consumer and health technologies. Lead applicants included Philips (109 applications), Google (96), Apple (79) and Beijing-based computer and smartphone manufacturer Xiaomi (78). The list is rounded out by Fisher & Paykel Healthcare (75 applications), a manufacturer, designer and marketer of products and systems for use in respiratory care.

Countries of origin

The leading foreign countries of origin for design right applications included the United States (US applicants were named on 1 853 applications), China (486), the United Kingdom (558), Japan (262) and Germany (220). These countries were among the top 5 origin countries for merchandise imports in Australia during the first half of 2020, with the exception of the UK.³ Thailand, the fourth-ranked source for merchandise imports is not a major country of origin for design right applications in Australia

While applications from the US accounted for a quarter of all design right filings in Australia, applications from the US fell in 2020 by 11 per cent. In contrast, applications from China increased by 31 per cent and those from the UK increased by 59 per cent.

Design rights provide protection to industrially produced products. Production in industries is staged along a value chain – the series of steps by which a product is produced and brought to market, as different businesses add value to ideas and components produced by others. Prior research commissioned by IP Australia found that Australian design innovators are more global in their strategy than the average Australian businesse. In addition, businesses in design rights-intensive industries are likely to be more active in global value chains than businesses outside these industries.

On average over the past decade, around one per cent of design right applications in Australia have been submitted by international partnerships, involving applicants from multiple countries; in 2020 that was only 0.5 per cent. The leading countries of origin for partnerships were China and the US (7 applications), Belgium and Japan (7), Austria and Germany (5) and Australia and the US (5).

Australian filings overseas

For data on Australian filings abroad we rely on statistics published by WIPO which are not yet available for 2020 and so we cannot see the effects of the pandemic in this data yet. Based on WIPO data, the design count in applications by Australians abroad was already in decline in 2019, having decreased by 14 per cent from their level in 2018. This followed a period of consistent growth since 2016. The majority of the decline occurred in design right applications filed by Australians at the European Union Intellectual Property Office (EUIPO). The count of designs filed by Australians at the EUIPO in 2019 fell by 43 per cent (to 377 designs) from their level in 2018.

As a consequence, the United States outranks the EUIPO as the major destination for design right filings by Australians overseas (633 designs in 2019). While Australian design filing activity in the US increased by 6 per cent, the next ranked destination countries – New Zealand (323 designs), China (318 designs) and the United Kingdom (163 designs) – all saw weakened demand from Australians, despite design filing activity increasing worldwide.⁵

- 1. For details, see https://www.wipo.int/classifications/locarno/en/.
- 2. Smith, N. (13 May 2020), "The giants of the video game industry have thrived in the pandemic. Can the success continue?" The Washington Post.
- 3. Australian Bureau of Statistics. International Trade, 5368, November 2020. Retrieved 25 January 2021.
- 4. Kollmann, T., A. Koswatta., A. Palangkaraya. and E. Webster (2020), "The impact of design rights on Australian businesses." Economic Research Paper 09, IP
- 5. World Intellectual Property Organization (7 December 2020), "World Intellectual Property Indicators Report: Trademark and industrial design filing activity role in 2019; patent applications marked rare decline." Press Release, WIPO. Retrieved 5 February 2020. wild Intellectual Property Organization (7 December 2020), "World Intellectual Property Indicators Report: Trademark and industrial design filing activity role in 2019; patent applications marked rare decline." Press Release, WIPO. Retrieved 5 February 2020. wild Intellectual Property Indicators Report: Trademark and industrial design filing activity role in 2019; patent applications marked rare decline." Press Release, WIPO. Retrieved 5 February 2020. wild Intellectual Property Indicators Report: Trademark and industrial design filing activity role in 2019; patent applications marked rare decline." Press Release, WIPO. Retrieved 5 February 2020. wild Intellectual Property Intellectual Prop

<u>Australian Intellectual Property Report 2021</u> > Chapter 5: Plant breeder's rights

Plant breeder's rights (PBRs) enable plant breeders to protect new varieties of plants for commercial ends. PBR owners can exclude others from commercially using the registered variety and the variety's name. This provides the opportunity for the right holder to collect royalties while directing the variety's production, sale and distribution

PBRs provide a maximum duration of 25 years of protection for eligible plant varieties. To receive protection, a plant variety must be clearly distinguishable from other varieties, uniform and stable on propagation. In addition, a plant variety must be clearly identified, as must the person or persons responsible for its development.

PBR applications and grants

In 2020, a total of 316 PBR applications were filed in Australia, up 12 per cent from their level in 2019. Following a relatively stable growth trend between 2012 and 2016, application levels were volatile between 2016 and 2020 (Figure PB1).

Following an increase in the number of grants in 2019, the number of PBRs that were granted in Australia decreased by 24 per cent to 212 in 2020, close to its average level over the past decade. To be granted, an application must pass a substantive examination process and, in most cases, a comparative growing trial conducted in Australia.

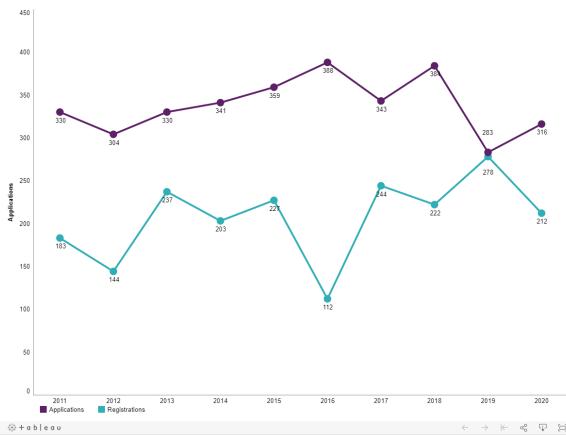


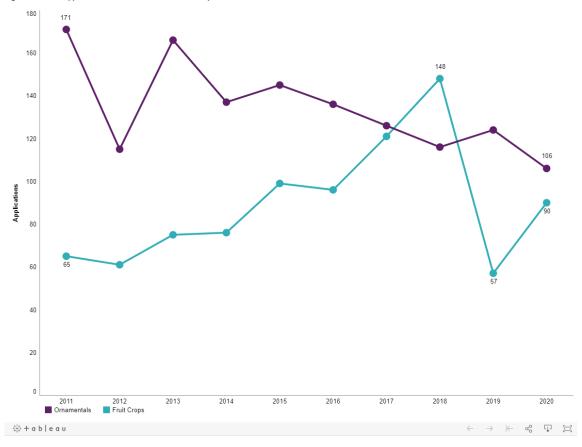
Figure PB1. PBR applications and grants, 2011-20

Plant varieties

Two plant groups, ornamentals and fruit crops were the strongest performers in PBR applications in 2020 (Figure PB2). Ornamental plant varieties retained the first place for their total number of applications (with a total of 106), comprising 34 per cent of all applications. Applications for ornamental varieties have declined since 2011 when a peak of 171 applications were recorded.

Fruit crops ranked second with 90 applications, accounting for 29 per cent of the total. Applications for fruit crops have seen more volatile change than ornamentals, with an overall increasing trend between 2011 and 2018, a sharp drop in 2019 possibly due to the flooding in North Queensland and drought in New South Wales, and a rebound in 2020 reaching close to its average level of the past decade.

Figure PB2. PBR applications for Ornamental and Fruit crop varieties, 2011–20

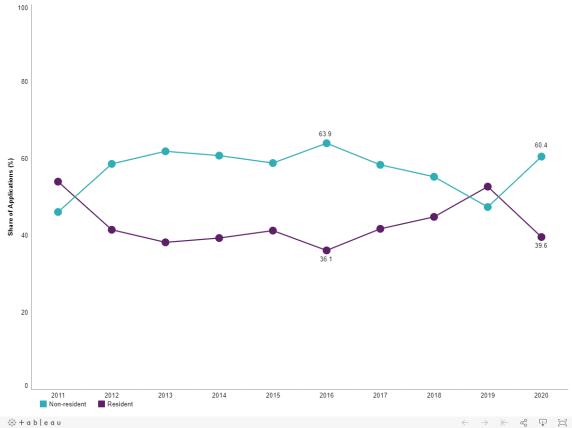


Resident and non-resident filings and registrations

In 2020, Australian residents filed 125 applications, accounting for 40 per cent of all PBR applications in Australia. Resident filings decreased by 16 per cent from their level in 2019. In contrast, applications by non-residents increased by 43 per cent in 2019-20 (from 134 to 191 applications).

The increase in applications by non-residents has restored their position as the dominant source for PBR filings in Australia, which held between 2012 and 2018, after residents increased their share of total filings in 2019 (Figure PB3).

Figure PB3. Share of PBR applications by residents and non-residents, 2011–20



In 2020, Australian residents registered 105 PBRs, accounting for 50 per cent of total registrations. Registrations by residents decreased by 21 per cent from their level in 2019, while registrations by non-residents fell by 27 per cent, to 107 registrations in total.

Countries of origin

The US and the Netherlands continued to be the two major overseas countries of origin for applications, accounting for 61 per cent of overseas filings in 2020. In 2020, applications from the US rebounded from their lowest point in the last decade, 36 filings in 2019, to 62 filings in 2020. Applications from The Netherlands also rebounded in 2020, from 27 to 54 filings

Leading applicants

Table PB1 lists the leading resident and non-resident applicants for PBR applications in Australia. Among domestic applicants, Australian Grain Technologies, NuFlora International, and Plant Growers Australia filed 10 applications each in 2020. Australian Grain Technologies is Australia's largest plant breeding company and market leader in wheat genetics; NuFlora International specialises in developing and commercialising ornamental plant cultivars for domestic and international markets; Plant Growers Australia is an innovative wholesale production nursery. Rolfe Nominees, an Australian private corporation, filed 6 applications. Mr Ian Shimmen, an Australian resident, filed 5 applications.

Table PB1. Top domestic and international applicants for PBRs in Australia, 2020

	Top domestic applicants			Top domestic applicants Top international applicants				applicants	
Rank	Applicant	Total applications	Rank change	Rank	Applicant	Total applications	Rank change		
1	Australian Grain Technologies	10	new	1	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	19	new		
1	NuFlora International	10	new	2	Eden Collection B.V.	7	new		
1	Plant Growers Australia	10	-	2	The Regents of the University of California	7	new		
2	Rolfe Nominees	6	new	3	Zaiger's Inc. Genetics	6	new		
3	Mr Ian Shimmen	5	new	4	Nunhems B.V.	5	†3		
				4	TerViva BioEnergy	5	new		
				4	VILMORIN S.A.	5	new		

For international applicants, Rijk Zwaan, a vegetable breeding company based in the Netherlands and operating in 30 different countries, was the top PBR filer in Australia with 19 applications. Eden Collection, another Dutch company, and The Regents of the University of California filed 7 applications each. Zaiger's Inc. Genetics, a US-based company focused on stone fruit breeding, filed 6 applications. Nunhems, a multinational company with their headquarters in the Netherlands who provide wholesale vegetable seeds and crops filed 5 applications, as did TerViva BioEnergy, a US agriculture technology firm, and Vilmorin, a French seed producer.

Australian Intellectual Property Report 2021 > Chapter 6: Copyright

Copyright is an unregistered property right which protects the form or way an idea or information is expressed, and is founded on a person's creative skill and labour. Copyright material generally includes items such as books, artwork, software, film and sound recordings.

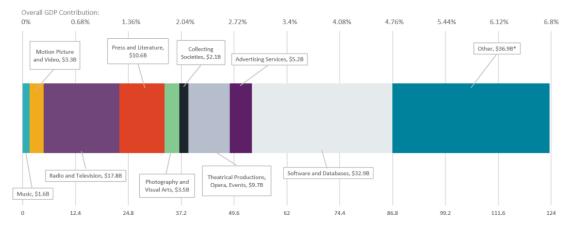
Copyright provides exclusive economic rights which allow the copyright owner to do certain acts with their copyright material, such as copying, publishing, communicating (e.g. broadcasting, making available online) and publicly performing the work. Copyright also provides non-economic rights, known as moral rights, which are designed to protect the creative integrity of copyright creators. In Australia, there are no formalities (such as registration) to obtaining copyright protection as it is granted automatically from the time an original work is created.

The Department of Infrastructure, Transport, Regional Development and Communications is responsible for managing the Copyright Act 1968. The Department develops Australian copyright policy and represents Australia's interests in relation to international copyright issues.

The value of copyright to Australia

A number of recent studies have looked into the value of copyright industries to the Australian economy. A study by PwC looked at the economic contribution of Australia's copyright industries across the period 2006-2018 using an internationally comparable methodology developed by WIPO. The research found that Australian industries relying on copyright protection in 2018 (including Press & Literature and Radio & Television) contributed \$124.1 billion to the Australian economy, equivalent to 6.8 per cent of Australia's gross domestic product (Figure C1). The copyright industries also accounted for 8.3 per cent of total employment in Australia and generated \$4.8 billion in exports.

Figure C1. Economic contribution of Australia's copyright industries



^{* &#}x27;Other' includes partial, non-dedicated support, and interdependent industries linked to copyright.

Some examples of industries underpinned by copyright include the screen industry and the publishing industry. The screen industry in Australia contributes \$5.34 billion in direct industry value-add to the economy, and it employs 30 500 people. 2 The Australian publishing industry employs over 4,300 people and generates over \$1.4 billion revenue. 3

The annual reports of Australia's two declared collecting societies, which collect and distribute payments for use of their members' copyright materials, provide further insight to the value of copyright in the Australian economy. In the 2019–20 financial year.

- Copyright Agency Limited (CAL) distributed \$114 million in revenue to more than 10 000 rightsholders including writers, artists, publishers and agents.
- Screenrights, distributed \$46.5 million to over 4 700 members, including producers, directors, broadcasters and agents in the audiovisual sector.⁵
- Australasian Performing Rights Association (APRA) and Australasian Mechanical Copyright Owners Society (AMCOS), together known as APRA AMCOS, distributed \$407.3 million to over 108 000 members, including musicians, composers, songwriters and publishers in the music industry.⁶

The value of copyright goes beyond the economic. Copyright facilitates a thriving arts sector, which builds a strong sense of collective identity and plays a role in social change. The National Arts Participation Survey run by the Australia Council for the Arts provides an insight into Australia's deep engagement with the arts in 2019. For example, 92 per cent of Australians report listening to recorded music. The portion of Australians who read for pleasure (72 per cent) has increased by 17 percentage points since 2016. 84 per cent of the population aged 15 years and over acknowledge significant positive impacts of arts and creativity. These positive impacts are noted on child development; our sense of wellbeing and happiness; our ability to express ourselves; and on shaping and expressing Australian identity.

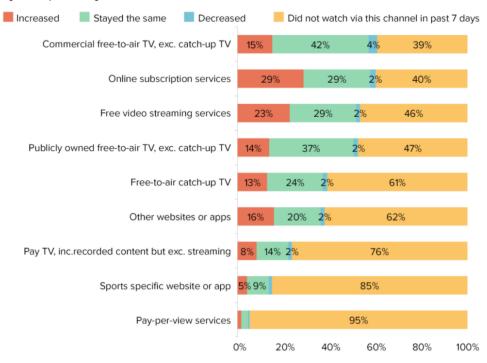
Copyright and COVID-19

Note

COVID-19 has impacted the copyright landscape in a variety of ways. People have been spending more time at home, leading them to consume more online content, create and share more art, and reimagine the ways in which they learn or work.

When asked about changes in time spent watching screen content (Figure C2), of those respondents who reported an increase in time spent watching screen content, the medium they were most likely to report was online content. Specifically, online subscription services (29 per cent reported an increase), free video streaming services (23 per cent reported an increase), and other websites and apps (16 per cent reported an increase) 11 These increases were particularly pronounced in females (online subscription services and other websites or apps), people aged 18-34 (online subscription services, free video streaming services, and other websites or apps), and those living in metropolitan areas (online subscription services, free video services, and other websites or apps). 12





Since social and physical distancing restrictions were introduced in response to COVID-19, how has the amount of time C3 you have spent watching each of the following changed?

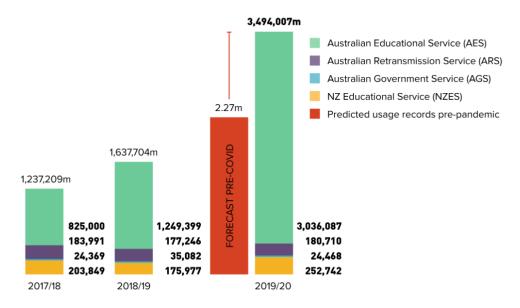
All respondents - Total (n=4,096).

The following are not shown: 'Don't know' (<\frac{1}{3}\), 'Refused'(<\frac{1}{3}\), Labels under 3% for Pay Per View Services

Reflecting this increase in screen consumption, Screenrights reported an exponential growth in the use of members' content, processing over 50 per cent more

usage records than anticipated for the 2019–20 period due to COVID-19 (Figure C3).12 The Australian Communications and Media Authority also reports that 69 per cent of Australian adults listened to online audio content in the 6 months to June 2020, up from 65 per cent in 2019. 14 Of those who listened, 29 per cent increased their consumption of online audio content since the COVID-19 restrictions in March 2020.

Figure C3. Total number of usage records of video content tracked over the last 3 years, by licence type (as reported by Screenrights)

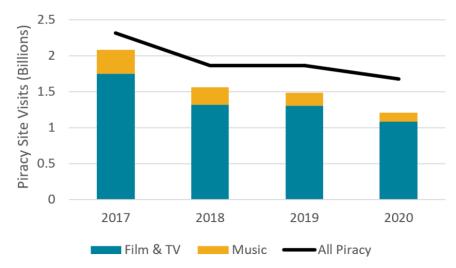


Industries across Australia have had to alter the way they operate, including how they access and share copyright material. Responses from copyright collecting societies, such as APRA AMCOS, the Australian Publishers Association, the Phonographic Performance Company (PPCA), OneMusic and Screenrights, include amending licences to reflect changes in use, expediting royalty payments for businesses to lessen the impact presented by COVID-19, providing guidance around the use of copyright materials while teaching remotely, and offering a range of content for free

Online infringement during COVID-19

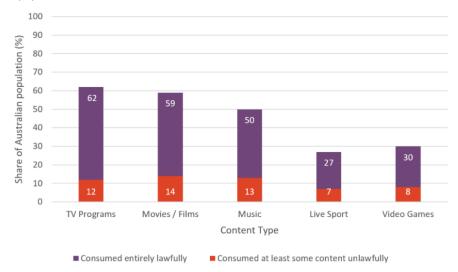
Australian traffic on piracy sites shows that COVID restrictions appear to have impacted visits to piracy sites in the short-term; however, the data does not indicate that it is likely to have a long-term effect on piracy levels (Figure C4). 15 The pattern of visits to piracy sites in 2020 remain consistent with year-on-year trends across industries, and overall visits to piracy sites have decreased substantially since 2017.

Figure C4. Australian traffic to piracy sites



In 2020, the proportion of respondents to the Online Copyright Infringement Survey who reported consuming music and movies from an unlawful source was broadly consistent compared to 2019 (Figure C5). The 2020 survey sets a new benchmark for measuring unlawful consumption of content in Australia, as the survey underwent a methodological overhaul. The updated indicators are designed to capture contemporary methods of consumption, focus on attitudes and further explore motivations and behaviours. ¹⁵ Further, it is possible the 2020 results were impacted by the COVID-19 pandemic lockdown, as the survey period corresponded with the height of COVID-19 restrictions in Australia.

Figure C5. Number of people who consumed online content in 2020



The 2020 survey indicated that a total of 34 per cent of users who downloaded or accessed content online in the period of March-June 2020 had consumed some content that was likely to be unlawful. The survey also showed that 13 per cent of respondents reported being more concerned about the lawfulness of their consumption during the pandemic, while just 3 per cent said they had been less concerned. Interestingly, infringers were more likely to be concerned (26 per cent) than non-infringers (8 per cent).

Conclusion

Copyright continues to play a critical role in ensuring Australians are rewarded for their creative skill and labour. The copyright industries contribute significantly to Australia's economy and society, and have shown resilience in the face of a global pandemic.

- $1. \ The \ economic \ contribution \ of \ Australia's \ copyright \ industries -2006-2018, PwC, June\ 2020$
- 2. Supporting Australian stories on our screens: Options paper, Department of Infrastructure, Transport and Communications, March 2020
- 3. Book Publishing in Australia (Industry Report J5413), IBISWorld, May 2019
- 4. Copyright Agency Annual Report 2020, Copyright Agency Limited, 2020
- 5. 2019-20 Annual Report, Screenrights, 2020
- 6. APRA AMCOS Year In Review 2019-20, APRA AMCOS, 2020
- 7. Creating our future: Results of the national arts participation survey, Australia Council for the Arts, 2020
- $8. \ Creating \ our \ future: Results \ of the \ national \ arts \ participation \ survey, \ Australia \ Council \ for \ the \ Arts, \ 2020 \ p.152$
- 9. Creating our future: Results of the national arts participation survey, Australia Council for the Arts, 2020 p. 156
- $10. \ Creating \ our \ future: \ Results \ of \ the \ national \ arts \ participation \ survey, \ Australia \ Council \ for \ the \ Arts, \ 2020 \ p. \ 40$
- 11. Media content consumption survey, Department of Infrastructure, Transport, Regional Development and Communications, 2020 p. 26

- 12. Media content consumption survey, Department of Infrastructure, Transport, Regional Development and Communications, 2020 pp. 27-29
- 13. 2019-20 Annual Report Highlights, Screenrights, 2020
- 14. Trends in viewing and listening behaviour, Australian Communications and Media Authority, 2020
- 15. Source: internal analysis by Department of Infrastructure, Transport, Regional Development and Communications of MUSO Piracy by Industry data, 2020
- 16. 2020 Copyright infringement survey, Department of Infrastructure, Transport, Regional Development and Communications, 2020 pp.5-9
- $17.\ 2020\ Copyright\ infringement\ survey, Department\ of\ Infrastructure, Transport, Regional\ Development\ and\ Communications, 2020\ p.3$
- $18.\ 2020\ Copyright\ infringement\ survey, Department\ of\ Infrastructure, Transport, Regional\ Development\ and\ Communications,\ 2020\ p.84$
- 19. 2020 Copyright infringement survey, Department of Infrastructure, Transport, Regional Development and Communications, 2020 p.9

CHAPTER 1: INTRODUCTION CHAPTER 2: PATENTS CHAPTER 3: TRADE MARKS CHAPTER 4: DESIGNS CHAPTER 5: PLANTS BREEDER'S RIGHTS

CHAPTER 6: COPYRIGHT CHAPTER 7: EXPORTER RESPONSES TO SHOCKS

CHAPTER 8: RESEARCH PROGRAM

Australian Intellectual Property Report 2021 > Chapter 7: Trade Marks and Exports

For Australian businesses, exporting your product or service presents an attractive opportunity for growth, and grants access to new and potentially larger markets around the world. A trade mark can be a valuable tool for exporters when launching new products and seeking to secure a market position in export markets. As the COVID-19 pandemic has laid bare, exporters face considerable uncertainty in deciding to compete abroad, given their potential exposure to supply chain disruptions, trade disputes, and institutional and financial market volatility. Also unclear to many businesses is how to seize market opportunities created by the expansion of international trade agreements.

Noting the above, in 2020 IP Australia's Office of the Chief Economist used Australian customs and firm microdata to examine whether trade marks facilitate access to export markets and shape exporter resilience to shocks. The research found that trade mark activity is a forward indicator that businesses are more likely to become exporters, and, after filing a trade mark in an export market, they perform better, become less reactive to exchange rate changes and increase exports more in response to reductions in tariffs. We estimate that trade mark owners increase their export revenue by around 70 per cent when they face a tariff fall from 10 per cent to zero, nearly double the revenue increase experienced by the average exporter.

Trade marks shape exporters' behaviour and resilience to shocks

The study uses data on all Australian manufacturing firms that filed at least one IP application (be it a trade mark, patent, design or plant breeder's right) and was active over the period 2004-05 to 2016-17. The empirical strategy involved comparing the behaviour of the same firm selling the same product in different country markets where the firm faces different shocks and may have filed for trade marks at different rates.

We linked Australian customs data with information on firms' annual trade mark filings in select destination markets (US, UK, Canada and 8 Eurozone countries),² this data sourced from TM-LINK, a global database of trade mark applications developed by IP Australia with research partners, in particular the Centre for Transformative Innovation at Swinburne University of Technology,³ We sourced information on tariffs from the World Trade Organization, and exchange rate data from the OECD and International Monetary Fund.

Trade mark activity is a forward indicator of export entry and performance

The results suggest that after a business files a trade mark the likelihood of exporting increases. We estimate that if a business moves from having one trade mark registration to two in the export market, it is 25 per cent more likely to export to that market compared to a similar business that did not. For exporters with six or more years of continual activity in the market, filing that additional trade mark is associated with a 30 per cent increase in export revenue. As the average long-term exporter earns \$1.3 million in export revenue per year, the increase amounts to an estimated \$416,000.

Unlike other exporters, trade mark owners earn more when the Aussie dollar appreciates

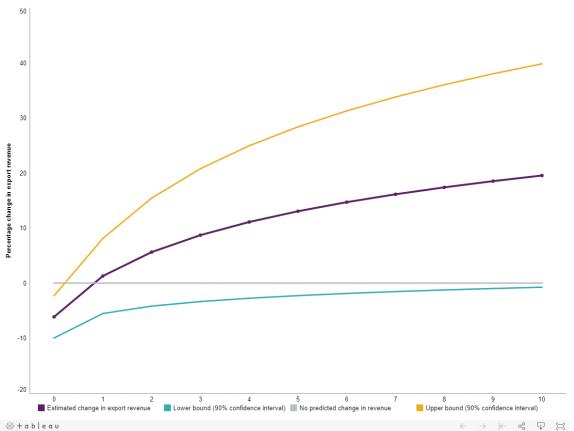
Our research has found that after filing for trade marks in a destination market, exporters benefit from changes in real exchange rates unlike firms that do not hold trade marks overseas.

Exchange rate appreciation (a rise in the value of the Australian dollar relative to the currency of a foreign buyer) typically leads to a reduction in exports because the foreign buyer will instead buy local goods rather than the more expensive Australian good. With an appreciation of the Australian dollar, the relative costs of advertising and marketing overseas however decrease. Firms with destination-country trade marks are well-positioned to capitalise on the reduced costs of advertising and marketing, as they can build and protect their brands.

Consistent with this idea, our results show that for the average exporter, an appreciation of the Australian dollar against an export market reduces the firm's likelihood of entering that market and, for incumbent exporters, reduces export revenue. After a firm files a trade mark in the export market, however, that same currency appreciation increases the firm's entry likelihood and its export revenue. On average, given a 10 per cent appreciation of the real exchange rate, the trade mark owner's entry likelihood increases slightly (by less than one per cent) and its export revenue increases by up to 40% depending on the number of trade marks filed (Figure E1).

For economists, these results help explain why, when we analyse international trade, exports appear less sensitive to real exchange rates than to tariffs

Figure E1. For exporters, as their recent trade mark filings overseas increase, so does their expected growth in exports given a 10 per cent appreciation of the home currency against the export market



Notes: Graph charts average marginal effects of tariff changes on export revenue (at time t) at different levels of trade mark activity (at time t-1) for long-term exporters with 6 or more years of continuous exporting a given market. Revenue estimation uses a log-linear OLS regression model, with the sample comprised of export participants with market tenure of 7 or more years. Analysis is at the firm-product-market-year level. Destination markets in focus include US, Canada, the UK and 8 Eurozone countries (Austria, Belgium, Finland, France, Italy, Netherlands, Portugal and Spain).

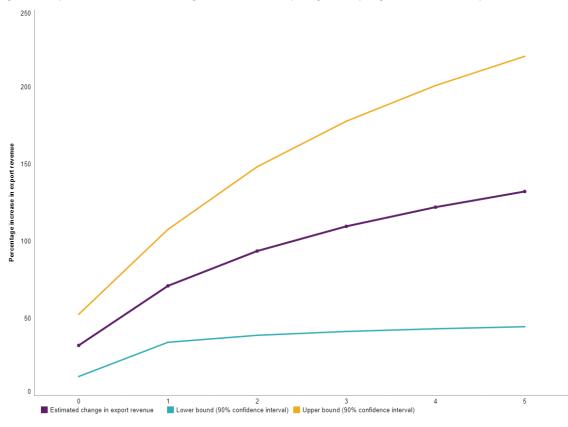
Source: BLADE (ABS. 2019); International Merchandise Exports (ABS, 2019); TM-LINK (IP Australia, 2020); World Trade Organization Tariff Download Facility (WTO, 2019); International Financial Statistics (IMF, 2019); National Accounts Statistics (OECD, 2019).

Trade marks owners benefit more when tariffs drop

Since the 2008 Global Financial Crisis, support for and use of tariffs and other protectionist trade policies has increased in G20 countries. In 2020, despite international trade being essential to countries fighting the COVID-19 pandemic, many countries imposed export restrictions, including on medical supplies, to boost local availability. At the same time, Australia is negotiating free trade agreements which could create new market opportunities for Australian exporters.

We found that trade mark activity tends to increase the sensitivity of exporters to tariff reductions. For trade mark owners, the reduction in tariffs (from 10 per cent to zero) will induce an increase in export revenue by 71 per cent, more than double the 32 per cent increase for firms without trade marks (Figure E2). For the same tariff reduction, the average exporter's entry likelihood doubles from a modest 0.12 per cent to 0.25 per cent; but if the firm has recently filed a trade mark in the export market, its entry rate doubles again to 0.53 per cent.

Figure E2. For exporters, as their recent trade mark filings increase, so does their expected growth in exports given a fall in tariffs from 10 per cent to zero.



Notes: Graph charts average marginal effects of changes in the real exchange rate on export revenue (at time t) at different levels of trade mark activity (at time t-1) for long-term exporters with 6 or more years of continuous exporting a given market. Revenue estimation uses a log-linear OLS regression model, with the sample comprised of export participants with market tenure of 7 or more years.

Analysis is at the firm-product-market-year level. Destination markets in focus include US, Canada, the UK and 8 Eurozone countries (Austria, Belgium, Finland, France, Italy, Netherlands, Portugal and Shanin)

Source: BLADE (ABS. 2019); International Merchandise Exports (ABS, 2019); TM-LINK (IP Australia, 2020); World Trade Organization Tariff Download Facility (WTO, 2019); International Financial Statistics (IMF, 2019); National Accounts Statistics (OECD, 2019).

Trade marks encourage export diversification when trade barriers fall

Australian manufacturers tend to respond to tariff reductions and appreciations of the domestic real exchange rate by decreasing the variety of products they export to a country market

Trade marks provide opportunities for firms to enter new markets that may have opened up through established international trade agreements. Consistent with this idea, we found for incumbent exporters that after they file a trade mark in a given country, reductions in tariffs there tend to encourage the exporters to diversify their exports.

Conclusion and key policy implications

This study provides evidence for how exporters can build resilience against shocks and seize new market opportunities, including those created through international trade agreements. The results also suggest that there may be complementary economic effects between policies – negotiated through trade agreements – that reduce tariffs and enhance exporters' access to IP protections overseas.

Trade marks filed both domestically and, to a greater degree, overseas are a forward indicator of export readiness so trade mark data provides a useful indicator for Government in targeting export assistance. Equally, as trade marks appear to play a significant role in shaping export behaviour, trade mark data can be used in predictive models of international trade, helping to explain why exporters are far more responsive to tariff changes than to exchange rate movements and how exporters become more resilient to economic shocks.

The full report of the study, 'Exporter responses to shocks: The role of trade marks', will be published in mid-2021 as part of IP Australia's Economic Research Paper Series

Disclaimer. The results of these studies are based, in part, on ABR data supplied by the Registrar to the ABS under A New Tax System (Australian Business Number) Act 1999 and tax data supplied by the ATO to the ABS under the Taxation Administration Act 1953. These require that such data is only used for the purpose of carrying out functions of the ABS. No individual information collected under the Census and Statistics Act 1905 is provided back to the Registrar or ATO for administrative or regulatory purposes. Any discussion of data limitations or weaknesses is in the context of using the data for statistical purposes and is not related to the ability of the data to support the ABR or ATO's core operational requirements. Legislative requirements to ensure privacy and secrecy of this data have been followed. Only people authorised under the Australian Bureau of Statistics Act 1975 have been allowed to view data about any particular firm in conducting these analyses. In accordance with the Census and Statistics Act 1905, results have been confidentialised to ensure that they are not likely to enable identification of a particular person or organisation.

- 1. A criterion for inclusion in our sample is that a firm must have filed at least one application for an IP right (patent, trade mark, design right or plant breeder's right) in Australia and have been active in the period 2004-05 to 2016-17. Firms in-sample are likely to have a higher export propensity than the average Australian firm
- 2. The Eurozone countries that we focus on are Austria, Belgium, Finland, France, Germany, Italy, the Netherlands, Portugal and Spain. For tractability, in estimating export entry, we restrict our focus to the US, UK and Canada.
- 3. Petrie, S., M. Adams, B. Mitra-Kahn, M. Johnson, R. Thomson, P. Jensen, A. Palangkaraya, E. M. Webster (2020), "TM-Link: An internationally linked trade mark database." Australian Economic Review.

PLANTS

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CHAPTER 6:

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EXPORTER

RESPONSES TO

SHOCKS

RESEARCH

PROGRAM

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CHAPTER 3: TRADE

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CHAPTER 1

INTRODUCTION

Office of the Chief Economist

The focus of the Office of the Chief Economist (OCE) is providing empirical evidence to support IP Australia's information, advice and operational decision-making. The OCE also provides analytical services to government agencies and research organisations.

In 2020, the OCE published its research paper, Intellectual property rights, business profitability and competition in the Australian economy, which reported the findings of the OCE's first project using firm-level 'microdata' in the Business Longitudinal Analysis Data Environment (BLADE) that is hosted by the Australian Bureau of Statistics.

CHAPTER 4:

DESIGNS

IP Australia's TM-Link dataset was integrated into BLADE to enable analysis of trade marks' role in facilitating access to export markets. The findings of this study are summarised in Chapter 7 of this report and an OCE research paper reporting the full details of the study will be published later in 2021.

In 2021, the OCE will also publish a research paper on the effects of IP rights on the performance of Australian Small and Medium Enterprises. In addition, research will be undertaken on the economic effects of topics such as plant breeder's rights.

Centre of Data Excellence

IP Australia's Centre of Data Excellence (CODE) was formed in late 2020 to further develop IP Australia's data capabilities. CODE includes the establishment of a new data 'front door' service to broker access to data, available to the public via email to data@ipaustralia.gov.au. This supports the growing demand to use information from multiple sources to provide insights and support decisions.

CODE supports end-to-end data processes for analytics and reporting, bringing together capabilities in data engineering, data development, analytics, visualisation and data governance. New data capabilities and services will be developed iteratively to meet the changing needs of our stakeholders.

Throughout 2020 the methods for producing the IPGOD dataset have been improved, with a particular focus on integrating the data across all of our rights. New machine learning techniques have been applied to match the organisations and entities that play a role in the right's life cycle. This will allow us to provide integrated data more regularly. In 2021 we will continue the improvements, with a focus on automating the data transformation pipeline and new representations of the data.

Patent Analytics Hub

In 2020, IP Australia's Patent Analytics Hub supported the Government's COVID-19 pandemic response with a series of analyses of technology areas important to the COVID-19 response. Data on global patent filings and domestic trade mark and design rights was analysed to identify the major global and Australian innovators in respiratory support devices, personal protective equipment (masks, gowns, goggles), vaccines, repurposed drugs, and medical diagnostics. Interactive data visualisations for patents in each technology area have been publicly available on our website since May 2020 to assist others in identifying know-how, supply and manufacturing resources required during the COVID-19 pandemic. 1

The Hub also published a separate patent analytics report on virus vaccines, prepared in partnership with the National Foundation for Medical Research and Innovation. The report investigates vaccine strategies used to prevent and control infectious disease outbreaks, with a focus on viruses with positive-sense single-stranded RNA genomes such as Chikungunya virus. Steady global patent filing activity over time indicates vaccine development remains an active area for innovation, with spikes in filings being readily correlated to specific disease outbreaks.

A patent analytics report on innovation trends for substitute meat, prepared for the Department of Industry, Science, Energy and Resources and due for publication in 2021, examined innovations in imitation and lab-grown meat substitutes. Patent fillings for imitation meat technologies have been steadily increasing since 2013 with patent fillings for lab grown meat technologies remaining low and indicating this technology is at an earlier stage of development.

The Hub is currently trialling the provision of tailored patent analytics reports to selected businesses currently enrolled in the Australian Government's Entrepreneurs' Programme, specifically from the medical technology and pharmaceutical sectors. This involves working closely with the programme's business facilitators and their client businesses to produce interactive patent analytics reports on specific technology areas, and so support strategic decision-making and business investment.

- 1. See https://www.ipaustralia.gov.au/about-us/research-and-data/patent-analytics-hub
- 2. See https://www.ipaustralia.gov.au/tools-resources/publications-reports/dose-innovation-patent-analytics-virus-vaccines
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