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Reinventing the Wheel

The Rise and Fall of the Australian Innovation Patent

Matthew Rimmer

In Australia, the credibility and legitimacy of second-tier systems for intellectual property has been the subject of ongoing debate and controversy.

In 2001, a patent attorney called John Keogh was issued an innovation patent by IP Australia for a 'circular transportation facilitation device'.[1] There were also patent claims relating to rubber wheels and tires. The field of the invention was a 'device for facilitating transport of goods and persons'.[2] The background explained that a 'circular transportation facilitation device' would be an improvement on walking, and on other devices, like 'skis, sleds, toboggans and the like'.[3] The application was accompanied by an illustration of a wheel (Figure 10.1).

There was also a perspective drawing of a cart incorporating 'a series of circular transportation facilitation devices in accordance with a preferred aspect of the present invention.'[4]

Keough said that he patented the wheel in order to establish that the innovation patent system was flawed because it did not need to be examined by the patent office. He explained his concerns:

> The patent office would be required to issue a patent for anything. All they're doing is putting a rubber stamp on it. The impetus came from the Federal Government. Their constituents claimed the cost of obtaining a patent was too high so the government decided to find a way to issue a patent more easily.[5]

Keogh noted that he had no immediate plans to patent fire, crop rotation, or other fundamental advances in civilization. John Keogh had previously written about the

[1] John Keogh (applicant), 'Circular Transportation Facilitation Device', Innovation Patent No. AU 2001100012 A4, Filing Date 24 May 2001.
[2] Ibid.
[3] Ibid.
[4] Ibid.
[5] Cochrane 2001a, 3.

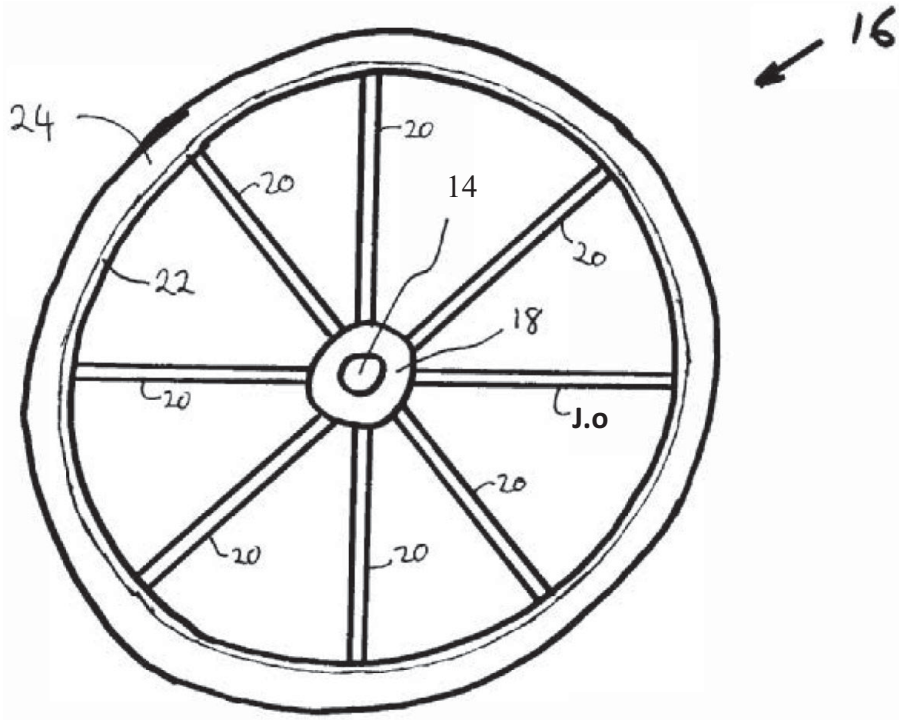

FIGURE 10.1 John Keogh, 'Circular Transportation Facilitation Device'

dangers of innovation patents, warning: 'These junk patents may bring the entire Australian patent system into disrepute'.[6]

The intervention received wide attention in the Australian media,[7] international news,[8] and even in august scientific magazines and journals, such as *New Scientist*.[9]

IP Australia were publicly outraged at the patent application. Commissioner of Patents Vivienne Thom commented that there was a danger of patent fraud: 'To obtain the patent for a wheel would require a false claim, which is a very serious matter and would certainly invalidate the patent as well as amounting to a misrepresentation on the part of the applicant and unprofessional conduct by any professional advisor.'[10] IP Australia later revoked the patent application. John Keogh won an Ig Nobel Prize for his efforts.[11] The prize ceremony stated: 'The Ig Nobel Prize

[6] Brennan and Keough 2000, 30. There was rebuttal in the letters to such an attack on the innovation patent. See Mischlewski 2000, 24.

[7] Cochrane 2001a, 3; Progress Press 2001, 9.

[8] See BBC 2001 (UK); CNN 2001 (US); Osgood 2001 (Canada); Christchurch Press 2001 (New Zealand).

[9] Knight 2001.

[10] CNN 2001.

[11] Business Times Singapore 2001; Radford 2001, 16; Scott 2001.

for Technology is awarded jointly to John Keogh of Hawthorn, Victoria, Australia, for patenting the wheel in the year 2001, and to the Australian Patent Office for granting him Innovation Patent #2001100012."[12] Keogh hoped that the Ig Nobel Prize would result in a rethink of the innovation patent: 'I was amused and it just shows the silliness of it all that people around the world are giving us awards for silliness."[13]

The intervention certainly follows in an Australian tradition of hoaxes,[14] fakes, and tall stories. Yet, this controversy cannot be dismissed as a mere joke. It highlights problems both with the operation of the innovation patent system, and the public perceptions of the legitimacy of the regime. The ignominious case of patenting the wheel has been re-invoked – as further scandals over innovation patents have emerged.[15]

This chapter charts the historical evolution of second-tier patent systems in Australia – looking at the establishment of the petty patent system, the rise and fall of the innovation patent, and the new focus of the Albanese Government upon breakthrough inventions. In terms of its methodology, this chapter provides a historical study of intellectual property reform in Australia.[16] It follows in the rich tradition of historical research in respect of intellectual property in the jurisdiction.[17] This chapter also uses socio-legal methodologies to highlight the gap between the aspirations for the innovation patent system, and the operation of the system in practice.[18] It also draws upon empirical research into intellectual property registration data.[19] This work is an investigation of litigation in respect of innovation patents – the so-called 'patent wars'.[20] As well as exploring intellectual property, the chapter also considers Australia's innovation policies – particularly in respect of small-to-medium enterprises[21] and lone inventors.[22] It highlights the tensions between the nationalistic vision of Australian policy-makers, and the larger forces of globalization.

[12] Flatow 2001.
[13] Cochrane 2001b, 4.
[14] In Australian literature, there has been a long tradition of hoaxes – see Heyward 1993; Jost et al. 1996; Manne 1996; Rimmer 2000; Carey 2003; Caterson 2006; Caterson 2009.
[15] The investigative journalists at the *Sydney Morning Herald* mentioned the controversy in a piece looking at the innovation patent applications of Jack Vaisman of the Advanced Medical Institute for sex treatments and therapies – Burke and McClymont 2009.
[16] Kenyon et al. 2009; Alexander 2020, 175–188.
[17] See for instance various historical studies of Australian intellectual property – Sherman and Bently 1999; Bently 2004; Bond 2016; Op Den Kamp and Hunter 2019; Scardamaglia 2020; Bellido and Bowrey 2022.
[18] Gallagher and Halbert 2021, 547–557.
[19] With its establishment of an economics unit, IP Australia has increasingly been focused on data analytics of its intellectual property data. See IP Australia 2023c.
[20] Allison et al. 2014; Cotter 2018.
[21] Hughes and Mina 2010.
[22] Lemley 2012.

This chapter is organized according to the chronology of the policy debate over second-tier innovation systems in Australia. Section 10.1 details the establishment of the petty patent system in Australia in the 1970s; the hopes of Australian policy-makers for this regime; and the reasons for its demise. Section 10.2 explores the institution of the innovation patent regime – the replacement for the petty patent system. Section 10.3 focuses upon filing and registration data on innovation patents. Section 10.4 charts litigation over innovation patents – particularly highlighting the decision of the High Court of Australia in *Aristocrat* v. *Commissioner of Patents*[23] on patentable subject matter, and the precedent on the threshold of an innovative step in *Dura-Post (Aust) Pty Ltd* v. *Delnorth Pty Ltd*.[24] Such disputes have highlighted both fundamental issues around patentable subject matter as well as the threshold required for an innovation patent. Section 10.5 focuses upon the reflections of the Advisory Council of Intellectual Property upon the innovation patent system and its relation to other intellectual property regimes. Section 10.6 looks at the work of the Productivity Commission in its analysis of Australia's intellectual property arrangements. Section 10.7 charts the work of IP Australia on the innovation patent – particularly in respect of the data on the innovation patent, and the economic impact of the regime. Section 10.8 looks at the abolition of the innovation patent regime – with the support of major parties in the Australian Parliament. Section 10.9 focuses on the new approach of the Albanese Government in promoting breakthrough innovation in key industries – rather than, so much, incremental innovation. The conclusion questions the future of utility models of patent protection – given the extinction of petty patents and innovation patents in Australia.

10.1 THE PETTY PATENT SYSTEM

At the outset, it is helpful to engage in archaeological historical examination of the political debate over the petty patent system in Australia in the 1970s.

There was a concern that Australia's standard patent system, and regime for designs protection, was ill-suited for small-to-medium enterprises and lone inventors in the 1960s and 1970s.[25] In 1973, the Franki Designs Law Review Committee produced reports on designs law, and utility models of patent protection.[26] The Committee preferred the language of 'petty patents' to that of 'utility models': 'The name "petty patent" appears to use to convey slightly more meaning on first sight and we think it is also a more appropriate name in view of the recommendations we have to make in respect to this form of protection.'[27] The Committee referred to previous consideration of the topic of petty patents in the United Kingdom.

[23] Aristocrat Technologies 2022.
[24] Dura-Post 2009.
[25] Christie and Moritz 2007, 119–141.
[26] Designs Law Review Committee 1973; Designs Law Review Committee 1974.
[27] Designs Law Review Committee 1974, 7.

The Committee undertook detailed research of the utility models adopted in Germany and Japan. The report noted the lack of harmonization: 'It appears clear from our investigations that the nature of the protection afforded by the various systems differs greatly and that there is no single recognized field for the operation of a petty patent system.'[28]

The Franki Designs Law Review Committee recommended the 'introduction in Australia of a system of petty patents to form part of the patent system'.[29] The Committee was satisfied that petty patents should 'cause the minimum of inconvenience to Australian industrial and manufacturing interests and we hope that, at least in the long term, the introduction of our recommended system might result in an improved patent system by encouraging applications for petty patents in respect of all inventions other than those for which a short term of protection and the limitation of a single claim would be inappropriate.'[30]

In 1979, the Australian government introduced the petty patent system to assist Australian small to medium business enterprises.[31] The government intended the system to provide a quicker and cheaper form of patent right for inventions with a short commercial life.

The Hon. Ian Macphee, Member for Balaclava and Minister for Productivity, introduced the *Patents Amendment Bill* 1979 (Cth).[32] Macphee was laudatory of the petty patent system:

> This measure is an extremely innovative development in the Australian patent system. The fundamental purpose of the new petty patent system is to encourage the commercial exploitation of inventions which now go largely unexploited or unprotected or both due to deficiencies in existing patent protection. In the past it has been too easily overlooked that the simple kind of inventions involved constitute a big proportion of patentable inventions. They encompass many areas, particularly in consumer-oriented products which collectively have considerable marketing potential. When the number of inventions involved and the extent of their potential use are considered it is clear that our failure in the past to provide adequate protection for such inventions seriously diminished the effectiveness of the patent system. A large part of the inventive effort of Australians has always been directed to such inventions. It follows that the patent system has not been utilising the product of that effort.[33]

Macphee concluded his speech recognizing the uniqueness of the Australian petty patent system: 'Because the particular petty patent system of this Bill is unique and has no counterpart in other industrial property legislation in the world, the

[28] Designs Law Review Committee 1974, 8.
[29] Designs Law Review Committee 1974, 8.
[30] Designs Law Review Committee 1974, 8–9.
[31] See Australian Patents Amendment Act 1979, § 17.
[32] Hon. Ian Macphee 1979, 183.
[33] Hon. Ian Macphee 1979.

introduction of the system is to a large degree experimental.'[34] He recognized that there could be a dissonance between the plans for the legislation, and the operation of the regime in practice: 'In view of its unique character, it is not possible to predict the exact effects which the system will achieve in practice, although its broad impact is clear enough.'[35] Macphee assured the Australian Parliament that 'the system will be continuously monitored with a view to making such alterations as from time to time appear necessary to ensure that the basic aim of assisting innovation and productivity in Australia is fulfilled.'[36]

From the Government, Liberal MP Gordon Dean (member for Herbert in Northern Queensland) discussed the legislative reforms in the House of Representatives of the Australian Parliament.[37] Dean discussed the merits of the petty patent system:

> By virtue of the short term of a petty patent monopoly the petty patent system introduced in the present Bill will accelerate the availability to industry of the information contained in petty patent documents. Moreover, experience with the present patent system suggests that the new petty patent system, by providing a form of protection adapted to assist the commercial exploitation of simple, consumer orientated inventions, has considerable potential for increasing the information available to industry about inventions conceived in Australia. For many years, the number of patent applications made by Australian inventors has remained static at about 4,000 applications a year. Approximately 3,000 of those applications are abandoned without maturing into a patent and without the documents being published. If the petty patent system encourages those applicants to obtain a petty patent, the resulting publication associated with the grant of the petty patent will make considerably more information available to Australian industry. The fact that the information concerns developments originating in Australia can be expected to give such publication added significance to industry.[38]

Dean concluded his speech, observing: 'Invention and technological change are essential elements in the continuing and increasing competitiveness of industry, and industry must learn about and make use of all relevant information, in particular that information available through the patents system.'[39] This speech on the petty patent system is underpinned by an Australian nationalism, and a desire to remain competitive with other nations in the Asia-Pacific, such as Japan: 'It is clear from the experience of countries, such as Japan, which have a very high usage of patent

[34] Hon. Ian Macphee 1979.
[35] Hon. Ian Macphee 1979.
[36] Hon. Ian Macphee 1979.
[37] Hon. Gordon Dean 1979, 446.
[38] Hon. Gordon Dean 1979.
[39] Hon. Gordon Dean 1979.

systems that the Australian patent system has the potential to play an increasingly important role in our future industrial development.'[40]

The Hon. Peter Shack also added his comments to the debate over the legislation.[41] Shack welcomed the legislation, noting that 'it is proposed to bring into operation an optional form of patent protection that has been devised specifically to assist small Australian industries and businesses and in doing so to encourage the inventive activity of Australians in fields that are particularly suited to commercial exploitation by small Australian enterprises'.[42] Shack supported the legislation as a means of economic modernization: 'I see the legislation as part of a process by this Government to upgrade Australia's industrial property laws through a process of reform which the Government believes . . . will make those laws more responsive to the economic needs of the nation.'[43]

The representative of the Opposition Australian Labor Party, Chris Hurford (MP for Adelaide), expressed some early misgivings as to whether the petty patent regime would fulfil such high hopes.[44] Hurford outlined the purpose of the Bill:

> The purpose of this Bill is to bring into operation an optional form of patent protection by creating a new short-term patent to be known as a petty patent. In contrast, of course, with the standard patent, which has a 16-year term, the petty patent will have a minimum term of one year and, with suitable extensions, could have a term as long as six years. As I understand it, the aim of the new petty patents system is to encourage commercial exploitation of inventions which now go largely unexploited or unprotected because of deficiencies in the existing system. Also as I understand it, the existing law is based on a system of uniform, relatively long-term protection for inventions. The system provides certainty, but at the cost of delays and expense. This penalises particularly those inventions which have only one inventive characteristic and which, therefore, have short commercially exploitable lives. These involve mainly consumer oriented products such as household accessories, gadgets and so on.[45]

Hurford raised several reservations. First, Hurford questioned whether 'the new system [will] really give a much needed boost to inventive activity?'[46] He noted in particular that the Inventors Association was 'not convinced that that the proposed petty patents system will directly aid individual inventors but believes instead that it may be of value only to small manufacturers.'[47] Second, Hurford wonders 'whether we can be guaranteed that the new system achieves a proper balance between the

[40] Hon. Gordon Dean 1979.
[41] Hon. Peter Shack 1979, 451.
[42] Hon. Peter Shack 1979.
[43] Hon. Peter Shack 1979.
[44] Hon. Chris Hurford 1979, 449.
[45] Hon. Chris Hurford 1979.
[46] Hon. Chris Hurford 1979.
[47] Hon. Chris Hurford 1979.

need to stimulate inventive activity on the one hand and freedom of access to all publicly available technology on the other hand.'[48] Third, Hurford was sceptical of the claims that the petty patent system was unique: 'After all, many other countries have had, as I mentioned earlier, a two-tiered system for some time.'[49] He wondered 'why our legislation differs from the two-tiered systems elsewhere.'[50] (Such a concern is at the heart of this comparative collection.) Finally, Hurford questioned whether there was a need to give so much discretion to the Commissioner of Patents in the operation of the system. The member of Adelaide wondered 'if the legislation were much more detailed it could become a jungle such as the tax legislation has become a jungle.'[51] Such questions seem prophetic – not only in relation to the operation of the petty patent system, but in respect of its successor, the innovation patent system.

However, the petty patent system was not well used, as well documented by Sam Ricketson and Megan Richardson.[52] The textbook writers commented: 'Although it is clear that petty patents are potentially a very appropriate form of protection for particular kinds of inventions that can, by their nature, be brought to commercialization more rapidly than others, there has scarcely been an extensive usage of the regime.'[53] Ricketson and Richardson said of petty patents: 'Petty patents are essentially "quickie" patents intended for innovations that are more readily commercialized.'[54]

The Advisory Council on Industrial Property reviewed the operation of the petty patent system in 1995.[55] It recommended that there should be a new second tier patent system in Australia to fill gaps in the range of intellectual property regimes (including in between patent law, designs law, and copyright law).

Likewise, the Intellectual Property and Competition Review Committee – with Henry Ergas, Professor Jill McKeough, and John Stone – recommended that the petty patent system should be replaced with an innovation patent system.[56] In its advice, 'The Committee strongly supports the Advisory Council on Intellectual Property (ACIP) Review of Petty Patents recommendations on the innovation patent, and urges the Government to expeditiously progress the relevant changes to the *Patents Act*.'[57] The Intellectual Property and Competition Review Committee commented: 'We believe that the role of the innovation patent will be enhanced if the Committee's proposals for higher thresholds for the standard patent are

[48] Hon. Chris Hurford 1979.
[49] Hon. Chris Hurford 1979.
[50] Hon. Chris Hurford 1979.
[51] Hon. Chris Hurford 1979.
[52] Ricketson and Richardson 1998, 763–765.
[53] Ricketson and Richardson 1998, 764.
[54] Ricketson and Richardson 1998, 695.
[55] Advisory Council on Intellectual Property (Australia) 1995.
[56] Intellectual Property and Competition Review Committee (Australia) 2000.
[57] Intellectual Property and Competition Review Committee (Australia) 2000, 16.

implemented.'[58] The Intellectual Property and Competition Review Committee observed: 'The Petty Patent was supposed to particularly encourage SMEs to innovate and patent, but it is not widely used.'[59] The Intellectual Property and Competition Review Committee later noted that utility models of patent protection were popular in comparative jurisdictions: 'Many countries have a lesser patent (often called a 'utility' patent), which attempts to balance lower threshold tests with a lower level of protection (length and breadth) to encourage lower levels of innovation, particularly by small to medium enterprises.'[60]

Professor Jill McKeough has been an influential figure in intellectual property law reform in Australia.[61] She has been insistent that intellectual property should be redesigned to better promote competition policy.[62]

10.2 INNOVATION PATENT

In his 2000 second reading speech, the Hon. Warren Entsch – the parliamentary secretary to the Minister for Industry, Science, and Resources – explained the impetus for the *Patents Amendment (Innovation Patents) Bill* 2000 (Cth):

> The government has acted on these recommendations and devised a 'second-tier' patent system to better address the needs of business, particularly small to medium enterprises. The innovation patent will be relatively inexpensive, quick and easy to obtain. It will provide the same scope of protection as the standard patent; however, it will require a lower inventive threshold than that required for a standard or a petty patent. An innovation patent will have a maximum patent term of eight years, compared to a 20-year term for a standard patent.[63]

The Secretary said: 'A major factor contributing to the reduced cost of obtaining an innovation patent will be the grant of a patent without substantive examination – the time consuming and costly process during which an application is assessed against relevant statutory criteria.'[64] He noted: 'Substantive examination will only occur if directed by the Commissioner of Patents or requested by the patent owner or a third party.'[65] Entsch commented: 'However, to reduce the scope for unsubstantiated threats, the owner of an innovation patent may only take action to exercise their rights if their patent has been substantively examined.'[66]

[58] Intellectual Property and Competition Review Committee (Australia) 2000, 16.
[59] Intellectual Property and Competition Review Committee (Australia) 2000, 157.
[60] Intellectual Property and Competition Review Committee (Australia) 2000, 157.
[61] Bowrey 2021.
[62] McKeough 2003.
[63] Hon. Warren Entsch 2000.
[64] Hon. Warren Entsch 2000.
[65] Hon. Warren Entsch 2000.
[66] Hon. Warren Entsch 2000.

Entsch added: 'Although innovation patents will be available for most of the types of invention currently covered by standard patents, they will not be available for plants and animals, or biological processes for the generation of plants and animals.'[67] He noted: 'This exclusion does not include microbiological processes and innovation patents will be available for processes such as cheese and wine making and the synthesis of industrial compounds using micro-organisms.'[68] Entsch observed: 'Over 48 other industrialised countries, including Japan and Germany, have already introduced second-tier patent systems.'[69] He contended: 'Overseas experience suggests that the innovation patent should provide better access to intellectual property rights and foster innovation by local enterprises.'[70]

The main opposition, the Australian Labor Party, supported the passage of the legislation. The Hon. Bob McMullan expressed his party's enthusiasm for the innovation patent regime:

> It is fundamental to being a successful, modern, industrial country that we have a contemporary, effective, strong body of intellectual property protection laws. This legislation is part of modernising that framework, and we support it. . . In essence, it goes to what is important about intellectual property in general historically, and certainly in the 21st century successful economies are going to be based upon the successful development of ideas. There are many phases in that. What has now become `the national innovation system' is a phrase that covers a multitude of sins. But I think there is now probably quite a well-developed concept of the cyclical nature of the process. We used to see it as more linear from invention to commercialisation and we now see it as a mutually reinforcing, more circular, process. The Wills report called it a virtuous circle.[71]

McMullan hoped that 'when subsequent reviews are done, they will say that Australia's international patent performance is at the international cutting edge, instead of just fair to middling, and that our research and development performance is improving.'[72] He trusted that the adoption of the innovation patent system would encourage further investment in Australian research and development:

> And when investors around the world look at where they might locate major research and development activity, they will be encouraged to believe that our intellectual property framework is so rigorous, so comprehensive and so contemporary that this will be the place in which they choose to make that investment, to create those jobs and to generate the ideas that could be the foundation for our successful 21st century economy.[73]

[67] Hon. Warren Entsch 2000.
[68] Hon. Warren Entsch 2000.
[69] Hon. Warren Entsch 2000.
[70] Hon. Warren Entsch 2000.
[71] Hon. Bob McMullan 2000.
[72] Hon. Bob McMullan 2000.
[73] Hon. Bob McMullan 2000.

In retrospect, the Australian Labor Party could have been more circumspect about the adoption of the regime, and questioned whether the scheme was likely to achieve its objectives.

His colleague Dick Adams agreed that the patent regime had a significant role to play in innovation policy: 'The protection provided through the patent scheme has had a big part to play in this success and will encourage people to continue their research to develop new and innovative products, exploit new technology and promote the transfer of technology to Australia.'[74] Nonetheless, he was doubtful as to whether the Coalition Government had provided sufficient support for education, research, and science: 'It seems a great pity that so much can be achieved by Australians all over the nation, yet this government is not prepared to put decent amounts of funds into research and development, or create policies to do so.'[75] In his view, 'It cannot just be left to the business community to put up the wherewithal to develop ideas' because 'there are times when there is insufficient risk capital available for the private sector to invest.'[76]

In the Senate, Senator Kay Patterson of the Government noted: 'The *Patents Amendment (Innovation Patents) Bill* 2000 (Cth) is a key part of this process, building on the government's commitment to providing a patent system which better meets the needs of Australian business and ensuring that Australian intellectual property laws remain internationally competitive.'[77] She was pleased that the opposition was prepared to support the regime: 'As I said, I welcome the opposition's support of the bill, which will enable both large and small businesses to profit from their investments in innovation.'[78]

While these excerpts represent key contributions of politicians in the debate, it should be noted that there was some other commentary from politicians about the proposed new innovation patent system as well.

In 2001, the Australian Government replaced the petty patent system with the innovation patent regime as a lower tier patent to supplement the standard patent system. Essentially, this scheme offers protection for a maximum term of eight years in respect of inventions that display an innovative step. Substantive examination will only occur if directed by the Commissioner of Patents or requested by the patent owner or a third party or if there is an infringement suit.

There was significant discussion about the threshold for an innovation patent – namely, the requirement for an innovative step, as opposed to an inventive step in relation to a standard patent.

[74] Hon. Dick Adams 2000.
[75] Hon. Dick Adams 2000.
[76] Hon. Dick Adams 2000.
[77] Senator Kay Patterson 2000.
[78] Senator Kay Patterson 2000.

10.3 FILING AND REGISTRATION DATA ON INNOVATION PATENTS

In its 2016 inquiry, the Productivity Commission reviewed the filing and registration data on innovation patents.[79] The Productivity Commission observed: 'In 2015, there were around 6500 active innovation patents in Australia (compared to over 130,000 standard patents).'[80] The Productivity Commission highlighted that the innovation patent system had a significantly lesser level of use: 'Between 2010 and 2015 the number of innovation patents granted each year ranged between 1300 and 1800 (compared to around 18,000 per year for standard patents).'[81] The Productivity Commission commented that most innovation patent applicants only used the system once: 'Parties that use the [Innovation Patent System] typically do so only once.'[82]

The Productivity Commission also charted the use of innovation patents across various technology fields: 'Most active innovation patents in 2015 were in the fields of civil engineering, furniture and games, IT methods for management, and electrical machinery, apparatus, and energy.'[83] They observed: 'Use of innovation patents relative to standard patents varies across technology fields.'[84] The Productivity Commission commented: 'Relative use of innovation patents is highest in the IT methods for management technology field, where they make up around 20 percent of total patents.'[85] Nonetheless, the Productivity Commission observed that there was little use of the innovation patent system in the life sciences: 'At the other end of the scale, innovation patents comprise less than 1 percent of total patents granted in chemistry-related technologies such as organic fine chemistry and biotechnology.'[86]

In a scathing review, the Productivity Commission questioned the social value of a number of innovation patents. It provided a gallery of absurd innovation patents in its policy analysis. The Productivity Commission highlighted a 'Heart rate path optimiser (2015101130)', which was 'A device for determining the heart rate of a user comprising, among other things, a sensor configured for providing heart rate signals.'[87] The Productivity Commission noted an innovation patent for 'A Bed for a Pet (2013100250)' which consisted of 'A mat and a frame that elevates the mat.'[88] The Productivity Commission also showcased the innovation patent for a 'Pizza Box Bib (2015100884)' which consisted of 'A pizza box where the lid includes a removable section, which when removed forms a recess that accommodates the neck of a

[79] Productivity Commission (Australia) 2016, 243.
[80] Productivity Commission (Australia) 2016, 243.
[81] Productivity Commission (Australia) 2016, 243.
[82] Productivity Commission (Australia) 2016, 243.
[83] Productivity Commission (Australia) 2016, 243.
[84] Productivity Commission (Australia) 2016, 243.
[85] Productivity Commission (Australia) 2016, 243.
[86] Productivity Commission (Australia) 2016, 243.
[87] Productivity Commission (Australia) 2016, 246.
[88] Productivity Commission (Australia) 2016, 246.

user.'[89] The Productivity Commission emphasized that 'Innovations are of greater social value where they advance technology and human knowledge, and generate knowledge spillovers in other areas of the economy.'[90]

The mass media also raised concerns about questionable innovation patents being granted for sex treatments and therapies.[91]

10.4 LITIGATION OVER INNOVATION PATENTS

It is a difficult exercise to engage in empirical research in respect of litigation involving innovation patents. There were a range of lawsuits, which emerged over the twenty years of the innovation patent. The Australian Legal Information Institute (AustLII) database brings up 120 documents related to the innovation patent from the Australian Patent Office database.[92] The AustLII database also contains a number of instances of litigation involving the innovation patent – raising issues about patent validity and patent infringement.

10.4.1 *Manner of Manufacture*

In Australia, the courts have traditionally taken a broad approach to patentable subject matter, drawing upon the *Statute of Monopolies*, and relying on the precedent of *National Research Development Corporation* v. *Commissioner of Patents* ("*NRDC*").[93]

Much like its counterparts in the Supreme Court of the United States and the Supreme Court of Canada, the High Court of Australia has been hearing a number of cases on the limits of patentable subject matter – which is discussed in terms of the terminology of 'manner of manufacture' in Australian law. Many of these cases have concerned standard patents. In *Grant* v. *Commissioner of Patents*, the Federal Court of Australia held that a method for protecting assets from unsecured creditors was not patentable because it was an abstract idea.[94] Most notably, in the *D'Arcy* v. *Myriad Genetics Inc.* case, the High Court of Australia rejected a patent application in respect of breast and ovarian cancer testing on the basis that it was 'an exorbitant monopoly' which sought to monopolise intellectual information.[95]

However, there has been an important case on patentable subject matter involving an innovation patent. In the 2022 case of *Aristocrat Technologies Australia Pty*

[89] Productivity Commission (Australia) 2016, 246.
[90] Productivity Commission (Australia) 2016, 246.
[91] Burke and McClymont 2009.
[92] The Australasian Legal Information Institute (AustLII) is a joint facility of UTS and UNSW Faculties of Law, which provides free online access to Australian legal information: www.austlii.edu.au/
[93] National Research Development Corporation 1959.
[94] *Grant* 2006.
[95] *D'Arcy* 2015. For commentary, see Rimmer 2017.

Ltd v. *Commissioner of Patents*, the High Court of Australia considered whether innovation patent applications for electronic gaming machines constituted a 'manner of manufacture.'[96]

The dispute had progressed through a number of decision-makers. The Commissioner of Patent's delegate had ruled that the innovation patents were not patentable subject matter because the substance of the invention was the game rules of gaming machines. The Federal Court of Australia allowed an appeal by Aristocrat, but the Full Court of the Federal Court of Australia allowed an appeal by the Commission of Patents. The High Court of Australia heard argument in July 2022.[97]

In the High Court of Australia, Kiefel CJ, Gageler and Keane JJ observed: 'In accordance with the approach in *Myriad*, it is necessary to characterise Aristocrat's claimed invention by reference to the terms of the specification having regard to the substance of the claim and in light of the common general knowledge.'[98] The judges found: 'In the absence of a claim to some variation of or adjustment to generic computer technology to give effect to, or accommodate the needs of, the new game, there is no reason to characterise the claimed invention as other than a claim for a new system or method of gaming: it is only in relation to the feature game that the invention is claimed to subsist.'[99]

The judges held: 'In the absence of such a finding, there is no basis for concluding that the claimed invention is patentable subject matter.'[100] The judges found: 'It is no more than an unpatentable game operated by a wholly conventional computer, using technology which has not been adapted in any way to accommodate the exigencies of the game or in any other way.'[101] The judges commented: 'Claim 1 of the 967 patent does not disclose any technical contribution to either computer or gaming technology outside the common general knowledge.'[102] The judges observed: 'At best, the claimed invention contains a new game which may enhance player enjoyment; but that cannot be said to amount to a technical contribution or to solve a technical problem in the field of computer or gaming technology.'[103]

The court also addressed an amicus curiae submission by the Institute of Patent and Trademark Attorneys of Australia. The judges noted: 'The IPTA also expressed concern that the approach of Middleton and Perram JJ would have "seismic" effects beyond the gaming industry, rendering unpatentable "swathes of inventions" that otherwise would have been, such as medical imaging and diagnostic machines,

[96] Aristocrat Technologies 2022.
[97] Aristocrat Technologies 2022.
[98] Aristocrat Technologies 2022., 73.
[99] Aristocrat Technologies 2022.
[100] Aristocrat Technologies 2022, 76.
[101] Aristocrat Technologies 2022.
[102] Aristocrat Technologies 2022., 84.
[103] Aristocrat Technologies 2022.

speed detection camera systems and biotechnology inventions such as COVID 19 diagnosis systems.'[104] The judges explained: 'It must be understood that a claimed invention for patentable subject matter does not become unpatentable because it is operated by generic computer technology.'[105]

The judges also heard arguments from the amicus curiae, the Fédération Internationale des Conseils en Propriété Intellectuelle, on patent-eligible subject matter under United States law. This amicus curiae warned that a narrow approach to patentable subject matter would have a chilling effect on innovation in Australia. The judges rejected their argument: 'Having regard to the reasons set out above, it can be seen that the FICPI's argument is unnecessarily alarmist.'[106] The judges noted: 'Since the relevant US statutory provision is different from the relevant terms of the Act, it will be readily apparent that the decisions in cases such as *Alice* have little significance for the outcome of this case.'[107] The judges observed: 'The foregoing reasons for holding that the appeal to this Court should be dismissed involve no reliance on the reasoning in *Alice*, or any other decision of the US courts.'[108] The judges commented: 'It is of little assistance to the application of Australian law to criticise the jurisprudence of a different legal system for reaching the same solution to a problem that Australian courts have reached.'[109]

Gordon, Edelman and Steward JJ dissented: 'In the 21st century, a law such as s 18 (1A) of the Patents Act that is designed to encourage invention and innovation should not lead to a different conclusion where physical cogs, reels, and motors are replaced by complex software and hardware that generate digital images.'[110] The judges commented 'Throughout this litigation, the Commissioner attempted to avoid such a curious result by re-characterising Aristocrat's claim as a mere scheme or abstract idea.'[111] The judges noted: 'The Commissioner could only achieve that characterisation by filleting from the claim essential and interdependent integers providing for the implementation of the game on the EGM.'[112] The judges argued: 'The integers stripped from the Commissioner's characterisation included components as basic as the display component of the player interface on which the images of symbols generated by the software and hardware appeared.'[113] The judges maintained that the appeal must be allowed because 'Claim 1 is a manner of manufacture within the meaning of s 6 of the *Statute of Monopolies*.'[114]

[104] Aristocrat Technologies 2022., 87.
[105] Aristocrat Technologies 2022.
[106] Aristocrat Technologies 2022., 92.
[107] Aristocrat Technologies 2022.
[108] Aristocrat Technologies 2022.
[109] Aristocrat Technologies 2022, 93.
[110] Aristocrat Technologies 2022, 97.
[111] Aristocrat Technologies 2022.
[112] Aristocrat Technologies 2022.
[113] Aristocrat Technologies 2022.
[114] Aristocrat Technologies 2022, 155.

In line with the *Judiciary Act*'s rules on split decisions, the appeal was dismissed with costs. However, the close 3-3 outcome highlights some strong philosophical differences in the court as to the limits and boundaries of patentable subject matter.

The ruling certainly received an animated response from Australian law firms – which sought to parse the decision.[115] The law profession was particularly concerned and worried about the lack of clarity and certainty around the boundaries of patentable subject matter.

10.4.2 *An Innovative Step*

The key precedent on the operation of the innovation patent system is the matter of *Dura-Post (Aust) Pty Ltd* v. *Delnorth Pty Ltd*.[116] The matter raised questions about manner of manufacture (the Australian language for patentable subject matter), and the threshold standard of an innovative step.

The case concerned three innovation patents for a 'Roadside Post'. The decision at first instance upheld infringement claims made by Delnorth Pty Ltd, and rejected Dura-Post's challenge to the validity of three patents (save in relation to claims 1 and 2 of each of Patents 2 and 3, which lacked an innovative step). Dura-Post mounted an appeal. The Full Court of the Federal Court considered questions of manner of manufacture, novelty, and innovative step.

Kenny and Stone JJ provided an overview of the innovation patent system. The judges rejected the contention that the patented invention was not a manner of manufacture. The judges found that there was no anticipation to require the lack of novelty conclusion for which Dura-Post argued. Kenny and Stone JJ held: 'In order for there to be a valid innovation patent, the invention disclosed in the patent must, amongst other things, involve an "innovative step".'[117] The judges added: 'In substance, s 7(4) deems an invention as claimed to involve an innovative step unless the invention does not differ from the relevant prior disclosure in a way that makes a substantial contribution to the working of the invention as claimed – in the sense of the device or process the subject of each claim.'[118] The judges found: 'On the basis of Mr Dowling's evidence, no relevant error is discernible in the primary judge's finding that each of these features made a substantial contribution to the working of the invention.'[119]

Monash Law School Professor Ann Monotti – who has sadly since passed away – wrote a detailed case note on the dispute, analysing its significance.[120] Monotti observed of the ruling on an innovative step: 'The result is probably quite a low

[115] See for instance, Cordiner et al. 2022; Gilchrist 2022; McKinley 2022; Rankine 2022.
[116] Dura-Post 2009.
[117] Dura-Post 2009, [49].
[118] Dura-Post 2009, [79].
[119] Dura-Post 2009, [85].
[120] Monotti 2010, 93–97.

threshold for protection."[121] She commented that this position 'contrasts with the assessment of an inventive step, which requires a direct comparison to be made between the invention as claimed and the common general knowledge alone or in combination with prior art information.'[122]

10.4.3 *Prior Use and Prior Secret Use*

In the 2017 case of *Coretell Pty Ltd* v. *Australian Mud Company Pty Ltd*, the Full Court of the Federal Court of Australia considering innovation patents related to core sample orientation – which is commonly used in relation to geological survey operations and other drilling operations.[123] The Full Court of the Federal Court of Australia considered whether claims of innovation patents were fairly based on disclosure in a provisional application.[124] The Full Court of the Federal Court of Australia considered whether innovation patents were invalid on the basis of prior use or secret use. The judge found that field trials had been conducted in confidence.

10.4.4 *Infringement*

There was early litigation over the innovation patent in respect of micro-dot technology. DataDot Technology launched legal action in the Federal Court, claiming that a rival company, Alpha Microtech, infringed its innovation patent. DataDot developed an invention which sprays cars with more than 10,000 'micro-dots' to deter car thieves from breaking up stolen cars to rebuild them or sell their parts. Alpha offered a similar system, called the SmartDot security marking and identification system. The precedent of *Datadot Technology Ltd* v. *Alpha Microtech Pty Ltd* provided an early insight into the operation of the regime in respect of enforcement of innovation patents.[125]

In the 2011 case of *Seafood Innovations Pty Ltd* v. *Richard Bass Pty Ltd*, the Full Court of the Federal Court of Australia considered claims that innovation patents had been infringed.[126] The field of the invention of the innovation patents related to fish stunning apparatus. Setting aside the first instance decision, Bennett J held that the Bass devices infringed various claims of the two innovation patents. Bennett J noted: 'Bass submits that Seafood Innovations is not entitled to claim a monopoly for all fish stunning devices in which a fish moves unidirectionally from the front entrance to the rear exit, irrespective of the technical method for achieving that

[121] Monotti 2010, 96.
[122] Monotti 2010.
[123] Coretell 2017.
[124] Coretell 2017.
[125] Datadot Technology 2003.
[126] Seafood Innovations 2011.

result.'[127] Bennett J commented: 'However, there is no requirement that the means of achieving that result must be included in the claims, although there is a requirement for sufficient description of the invention, including the best method, in the specification (s 40(2)(a) of the Act).'[128]

10.4.5 *Remedies*

As Katrina Crooks has observed, there was judicial debate over the timing of damages for the infringement of innovation patents.[129]

In *Britax Childcare Pty Ltd* v. *Infa-Secure Pty Ltd*, there was litigation related to nine innovation patents and one standard patent owned by child safety seats.[130] Each of the innovation patents was divided out of Britax's earlier standard application. The court expressed some concern about some of the patents and claims being specifically draft to catch allegedly infringing Infa products. In the 2012 case of *Britax Childcare Pty Ltd* v. *Infa-Secure Pty Ltd (No 3)*, a judge in the Federal Court of Australia held that infringement of an innovation patent could run from the 'date of the patent'.[131]

In the 2017 case of *Coretell Pty Ltd* v. *Australian Mud Company Pty Ltd*, the Full Court of the Federal Court of Australia overturned the ruling in *Britax* on this point.[132] Justice Burley referred to the infringement provisions of the *Patents Act* 1990 (Cth), observing that they refer to infringement of 'a patent', inferring a granted patent.

In the 2020 case of *Quaker Chemical (Australasia) Pty Ltd* v. *Fuchs Lubricants (Australasia) Pty Ltd (No 2)*, there was dispute over the validity of an innovation patent related to a method for detecting high pressure fluid injection.[133] Fuchs argued that there was a lack of novelty. Fuchs argued that the innovation patent was invalid on the grounds of lack of utility, insufficiency, lack of clarity and lack of fair basis. Fuchs also raised concerns of secret use. The judge rejected these arguments, challenging the validity of the patents. The judge held that there was infringement of the patent. There was an argument for additional damages. The judge held that it was inappropriate to award additional damages: 'Although Fuchs made the supplies to Broadmeadow having regard to its commercial position vis-à-vis Quaker and to guard against losing market share in relation to other products as well, I do not consider its conduct as warranting additional damages.'[134]

[127] Seafood Innovations 2011.
[128] Seafood Innovations 2011.
[129] Crooks 2017.
[130] *Britax* 2012a.
[131] *Britax* 2012b.
[132] Coretell 2017.
[133] Quaker Chemical [2020].
[134] Quaker Chemical [2020], 853.

10.5 THE ADVISORY COUNCIL ON INTELLECTUAL PROPERTY

The Advisory Council on Intellectual Property was a specialist body established by the Federal Government to provide expert advice on intellectual property law reform (particularly in the areas of industrial property).[135] The organization included representatives from business and manufacturing, the legal and patent and trademark attorney professions, academia, and research.

There was also debate about the interrelationship between the innovation patent system and secondary forms of intellectual property – most notably plant breeders' rights.[136] The Advisory Council on Intellectual Property led by Professor Andrew Christie of the University of Melbourne investigated the interrelationship between plant breeder's rights and the innovation patent.[137]

An issues paper was released in 2002.[138] The Advisory Council on Intellectual Property sought comment on a number of questions. Is the current 'gap' in IP protection for inventions with a lower level of threshold, that involve plant and animal subject matter, seen as an existing or potential problem? Given the existence of the standard patent system and the PBR system, is there a need for those involved with plant and animal subject matter R&D in Australia to be able to protect their research with the innovation patent? What, if any, are the national benefits of excluding plant and animal subject matter from the innovation patent? What impact would the innovation patent have on non-IP-rights holders were it to include plant and animal subject matter? There were strong objections from the plant breeders' rights community who were concerned that the innovation patent system could provide competition and duplication for its system.

A final report was delivered in November 2004.[139] The Advisory Council on Intellectual Property observed: 'Where a proposal to restrict competition lacks clear benefits, the status quo should be maintained.'[140] The Advisory Council on Intellectual Property demurred from expanding the innovation patent system: 'As relatively little concern has been expressed over the innovation patent exclusion for animals and processes for their generation, ACIP considers that there is insufficient reason for change at this stage.'[141] The Advisory Council on Intellectual Property did contemplate that there was scope for a reconsideration of the issue in the future: 'However, in the future innovation patent protection may be needed due to an

[135] IP Australia 2023a.
[136] The *Plant Breeder's Rights Act* 1994 (Cth). For commentary on the regime, see Rimmer 2003.
[137] Advisory Council on Intellectual Property (Australia) 2002.
[138] Advisory Council on Intellectual Property (Australia) 2002.
[139] Advisory Council on Intellectual Property (Australia) 2004.
[140] Advisory Council on Intellectual Property (Australia) 2004, 2.
[141] Advisory Council on Intellectual Property (Australia) 2004, 2–3.

increase in the development of genetically modified organisms, which is a potentially more costly form of breeding.'[142]

There was also concern about overlap between the regime for industrial designs, and the innovation patent. There has been ongoing process of law reform in Australia in respect of the industrial designs system.[143] Nonetheless, the designs regime is still only used in a minor way compared to the heavy use of patents and trademarks.

The Advisory Council on Intellectual Property conducted a full-scale inquiry into innovation patents.[144] There was an issues paper.[145] There was an options paper.[146] There was a Final Report published in 2014, and revised in May 2015.[147] There was also an accompanying Verve Economics Report on the Economic Value of the Innovation Patent.[148]

Initially, in the 2014 version of the final report, the Advisory Council on Intellectual Property equivocated as to the fate of the innovation patent.[149] The organization argued that 'ACIP has been unable to obtain adequate empirical evidence as to whether the system does or does not stimulate innovation in Australian SMEs.'[150] Accordingly, 'ACIP is therefore unable to make a recommendation on whether to retain or abolish the innovation patent system.'[151] The Advisory Council on Intellectual Property did make some contingent law reform recommendations: 'If the government chooses to retain the system, then ACIP urges it to consider various recommendations in this report to enhance its effectiveness and to reduce some of the system's unintended consequences.'[152] In particular, the Advisory Council on Intellectual Property recommended raising the innovative step threshold; adoption of substantive examination; rules on the use of the term 'patent'; the operation of manner of manufacture for innovation patents; and the use of remedies for infringement of innovation patents.

In a May 2015, Corrigendum, the Advisory Council on Intellectual Property further revised its position on the innovation patent, calling for its abolition.[153] The Advisory Council on Intellectual Property took note of the economic analysis of IP Australia: 'A key finding in this research paper is that Australian SMEs are less likely to use the patent system after filing an innovation patent than a company that

[142] Advisory Council on Intellectual Property (Australia) 2004, 3.
[143] Designs Act 2003 (Cth); Designs Amendment (Advisory Council on Intellectual Property Response) Act 2021 (Cth); IP Australia 2021; IP Australia 2023b.
[144] Advisory Council on Intellectual Property (Australia) 2015.
[145] Advisory Council on Intellectual Property (Australia) 2011.
[146] Advisory Council on Intellectual Property (Australia) 2013.
[147] Advisory Council on Intellectual Property (Australia) 2015.
[148] Zeitsch 2013.
[149] Advisory Council on Intellectual Property (Australia) 2015.
[150] Advisory Council on Intellectual Property (Australia) 2015, 5.
[151] Advisory Council on Intellectual Property (Australia) 2015, 5.
[152] Advisory Council on Intellectual Property (Australia) 2015, 5.
[153] Advisory Council on Intellectual Property (Australia) 2015, 2.

has not previously filed an innovation patent."[154] The Advisory Council on Intellectual Property concluded that 'innovative activity is not being stimulated among these groups by the innovation patent system."[155] The Advisory Council on Intellectual Property observed: 'In light of the information made available by the IPGOD dataset and the analysis presented in this research paper, ACIP is now able to make an assessment of the innovation patent system's effectiveness in stimulating innovation among SMEs."[156] The Advisory Council on Intellectual Property concluded: 'ACIP considers it likely that the innovation patent is not achieving this objective and the Government should therefore consider abolishing the system."[157]

The Advisory Council on Intellectual Property was subsequently dissolved by the Abbott Government – as part of its effort to reduce 'red tape' in the operation of government. This decision meant that IP Australia has had to increasingly do its own 'in-house' law reform and public policy work, because of a lack of a specialist advisory body. Moreover, other generalist law reform bodies like the Productivity Commission and the Australian Law Reform Commission have had to take up major work in respect of intellectual property law reform. Parliamentary committees have often questioned whether they are best placed to deal with the technicalities of intellectual property law reform. It is doubtful that the abolition of the Advisory Council on Intellectual Property has led to any further efficiencies in the law reform process in Australia in relation to intellectual property.

10.6 THE PRODUCTIVITY COMMISSION

The Productivity Commission is a unique Australian policy body, which provides independent research advice to the Australian Government on economic and social issues affecting the welfare of Australians. The Productivity Commission is known for conducting extensive empirical research in respect of public policy issues. The Productivity Commission has been influential in driving law reform and public policy debate in Australia across a range of fields.

The Productivity Commission has been given a number of references over the years in respect of matters of intellectual property. The Productivity Commission has considered the interaction between intellectual property and trade policy.[158] The Productivity Commission has examined the operation of flexibilities in respect of compulsory licensing and crown use for the patent regime and industrial designs.[159]

[154] Advisory Council on Intellectual Property (Australia) 2015, 1.
[155] Advisory Council on Intellectual Property (Australia) 2015.
[156] Advisory Council on Intellectual Property (Australia) 2015, 2.
[157] Advisory Council on Intellectual Property (Australia) 2015.
[158] Productivity Commission (Australia) 2010.
[159] Productivity Commission (Australia) 2013.

The Productivity Commission has also engaged in a systematic evaluation of the entirety of Australia's intellectual property regime.[160]

The then Treasurer Joe Hockey asked the Productivity Commission to investigate Australia's intellectual property system – making specific reference to 'the findings and recommendations of the Advisory Council on Intellectual Property's Review of the Innovation Patent System'.[161]

A key issue in its inquiry into Australia's intellectual property arrangements was the question of the innovation patent regime. The Productivity Commission produced an issues paper and a discussion paper, and sought feedback from a wide array of stakeholders. There were submissions on the topic of an innovation patent from various interested parties.

The generic pharmaceutical company Alphapharm was an opponent of innovation patents, expressing concerns that such a regime could be exploited for the purposes of 'evergreening'.[162] In other words, the generic company was concerned that pharmaceutical drug companies would seek to extend the life of an initial patent, with further innovation patents. Alphapharm maintained that innovation patents should not be available for therapeutic goods: 'Immediately amend the *Patents Act* 1990, with retrospective effect, so that an innovation patent cannot contain a claim relating, concerning or associated with a therapeutic good.'[163]

While Apple had filed many innovation patents, Microsoft was by contrast a staunch opponent of innovation patents.[164] Microsoft commented: 'Microsoft agrees with a number of the Draft Report's conclusions and recommendations relating to various improvements to Australia's patent regime (including the proposed abolition of the innovation patent system and adoption of a more stringent standard for inventive step).'[165] Microsoft clearly took the strategic view that it had a much more sophisticated system of standard patents than many of its rivals and competitors, and could operate without a second-tier regime of innovation patents.

The key defender of innovation patents was the patent attorney profession. They mounted a rearguard action, calling for the maintenance or reform of the innovation patent system, instead of abolition of the system. Patent attorney and blogger Mark Summerfield bemoaned the push to terminate the innovation patent system, as an over-reaction by the Federal Government.[166] He argued that 'the overwhelming majority of those advocating to retain the system support reforms to mitigate

[160] Productivity Commission (Australia) 2016.
[161] Productivity Commission (Australia) 2016, v.
[162] Alphapharm 2015.
[163] Alphapharm 2015, 5.
[164] Microsoft 2016.
[165] Microsoft 2016, 5.
[166] Summerfield 2018.

some of the problems that have become apparent, and improve its effectiveness as a second-tier right that can support the needs of SMEs."[167]

In its key points, the Productivity Commission commented: 'Australia's patent system grants exclusivity too readily, allowing a proliferation of low-quality patents, frustrating follow-on innovators and stymieing competition."[168] The Productivity Commission observed: 'To raise patent quality, the Australian Government should increase the degree of invention required to receive a patent, abolish the failed innovation patent, reconfigure costly extensions of term for pharmaceutical patents, and better structure patent fees."[169] In its overview, the Productivity Commission stressed that 'the "second-tier" patent experiment has failed."[170] The Productivity Commission noted: 'Some participants have called for the IPS to be abolished; others have called for its reform."[171]

The Productivity Commission questioned whether it was viable to reform the Innovation Patent regime, making reference to the film *Groundhog Day*, directed by Harold Ramis, and starring Bill Murray and Andie MacDowell:

> Were the [Innovation Patent System] to be reformed, there would be strong grounds to exclude obvious inventions by setting the innovative step at the same level as the inventive step for standard patents. It would also be necessary to address strategic behaviour, most likely by reintroducing a mandatory examination process, and limiting the period in which damages could apply. However, reforming the [Innovation Patent System] along these lines would see innovation patents resemble petty patents, and so represent a return to an approach already found to be lacking—tantamount to a policy 'Groundhog Day'.[172]

The Productivity Commission concluded: 'The community's interests, and the interests of SMEs, would be better served by abolishing innovation patents and directly tackling the IP issues of greatest concern to SMEs, such as patent infringement and enforcement costs."[173]

In its analysis of Australia's intellectual property system, the Productivity Commission devoted a full chapter to the innovation patent system in its final report.[174] The Productivity Commission were critical of the operation of Australia's innovation patent system, questioning whether it was serving its original purpose. The Productivity Commission lamented: 'By failing to target socially valuable, additional innovations, the IPS can have unintended consequences."[175] The Productivity Commission commented: 'Some participants linked the low innovative threshold

[167] Summerfield 2018.
[168] Productivity Commission (Australia) 2016, 2.
[169] Productivity Commission (Australia) 2016.
[170] Productivity Commission (Australia) 2016, 17.
[171] Productivity Commission (Australia) 2016.
[172] Productivity Commission (Australia) 2016.
[173] Productivity Commission (Australia) 2016.
[174] Productivity Commission (Australia) 2016.
[175] Productivity Commission (Australia) 2016, 252.

to a proliferation of obvious patents, legal uncertainties and patent thickets, which in turn raise barriers to entering markets and blunt competitive pressure, itself a driver of innovation.'[176] The Productivity Commission lamented: 'A multitude of low-value patents make it harder for an innovative firm to be sure it is not infringing someone else's patent.'[177]

Ultimately, the Productivity Commission supported the abolition of the innovation patent system:

> Abolishing the [innovation patent system] would deliver greater benefits for the community. It would simplify the overall patent system, reduce administrative and transaction costs, and remove the ability for patent holders to use the system strategically. To the extent that innovative and socially valuable ideas currently receive protection under the IPS, these would be expected to receive protection under the standard patent system. Innovations that would not pass the inventive step threshold under the standard patent system are more likely to impose net costs on the community, and should not receive protection.[178]

The Productivity Commission submitted its report to the Treasurer Scott Morrison – who was subsequently the next Conservative Coalition Prime Minister of Australia.

10.7 IP AUSTRALIA

In addition to the work of these other law reform bodies, IP Australia[179] has also undertaken its own empirical research into the operation of innovation patents.

The economics unit of IP Australia engaged in data analysis of Australia's innovation patent system. This study raised questions as to whether the scheme was operating as it was intended – namely, to support inventors and small-to-medium inventors. The report found as follows:

> The evidence shows that firms who file innovation patents are less likely to participate in the standard patent system afterwards. The great majority of Australian SMEs and private inventors appear to gain little benefit from the system. Three quarters of these applicants file one innovation patent and then never file another innovation or standard patent again.[180]

[176] Productivity Commission (Australia) 2016.
[177] Productivity Commission (Australia) 2016.
[178] Productivity Commission (Australia) 2016, 261.
[179] IP Australia is an Australian government agency which administers the registration of patents, trademarks, registered designs, and plant breeder's rights in Australia – www.ipaustralia.gov.au/ As well as being involved in IP administration, IP Australia plays a key part in law reform – particularly since the abolition of the Advisory Council on Intellectual Property.
[180] Johnson et al. 2015.

The research paper observed: 'Only 23 SMEs have become moderate users of the innovation patent system, filing at least 5 innovation patents, with at least one enforceable right, and entering the patent system via an application for an innovation patent.'[181] The research paper added: 'The average SME or private inventor files once and never again (74%) does not receive any enforceable right (83%), and lets their patent expire early because they see its value at less than the $110–$220 cost of renewal (78%).'[182] The research paper concluded: 'The low levels of repeated use by SMEs suggest that the innovation patent is not fulfilling its policy goal of providing an incentive for Australian SMEs to innovate, and the evidence shows a reduced likelihood of patenting after participating in the innovation patent system.'[183] The research paper maintained: 'Given the low private value of the system, it is likely that the system is a net cost to most of the SMEs that use it, and the system has imposed a regulatory burden of more than $100m since its introduction.'[184]

10.8 ABOLITION OF THE INNOVATION PATENT

As a result of these various investigations, the Australian Government decided to abolish the innovation patent. IP Australia observed that 'innovation patents were being used by large firms as a strategic tool to stifle competition'.[185] IP Australia was worried that 'low standards for innovation patents inhibit genuine innovation and competition'.[186] Moreover, IP Australia expressed concerns that 'innovation patents put Australian innovators at risk in overseas markets', because there was not necessarily matching protection in other jurisdictions.[187]

There was some resistance to this proposal for the abolition of the innovation patent. Professional organisations representing patent attorneys and trademarks mounted a desperate but ultimately futile political campaign to save the innovation patent, lobbying policy-makers to reconsider the issue.[188] Nonetheless, the Conservation Coalition that made up the Federal Government was unmoved, and proceeded with its plan to phase out the innovation patent.

[181] >Johnson et al. 2015.
[182] >Johnson et al. 2015.
[183] >Johnson et al. 2015.
[184] >Johnson et al. 2015.
[185] IP Australia 2019.
[186] IP Australia 2019.
[187] IP Australia 2019.
[188] 'IPTA will continue to lobby to retain innovation patents. To do so effectively, however, requires more case studies from Australian SMEs demonstrating the benefits of the innovation patent system. For this reason, we ask members to continue to contribute to the momentum that has been building to retain the innovation patent system.' Shoebridge 2018; The Institute of Patent and Trade Mark Attorneys of Australia 2018.

Opposition Labor Senators argued that 'the evidence provided from a number of parties suggests a significant gap could emerge if the innovation patent is removed without alternative mechanisms being put in place to specifically assist small- and medium-sized enterprises (SMEs) to access the patent system and innovate.'[189]

The *Intellectual Property Laws Amendment (Productivity Commission Response Part 2 and Other Measures) Act* 2019 (Cth) has enabled the phase out of the innovation patent system. In her second reading speech, the Hon. Karen Andrews – the Minister for Industry, Science, and Technology – explained the decision.[190] She said: 'This second-tier patent was intended to incentivise small to medium-sized Australian businesses to invest in research when it was introduced in 2001.'[191] Andrews commented: 'However, in the 18 years since then, it has become clear that the second-tier patent has been more harmful than helpful for SMEs.'[192] She observed: 'There is widespread agreement among stakeholders that the system is not fit for purpose.'[193] Andrews noted: 'Some people argue that the second-tier patent should be reformed, but there is no agreement on a workable alternative.'[194] She pointed to the outcome of law reform reviews: 'Both the Productivity Commission and the former Advisory Council on Intellectual Property recommended that the innovation patent system be abolished'.[195] Andrews noted: 'Both found there is no evidence that the second-tier patent stimulates innovation or research in Australia.'[196] She stressed: 'What it does do, according to both bodies, is lead to uncertainty, confusion and a higher regulatory burden, particularly for our Australian SMEs.'[197] Andrews commented: 'The amendments ensure that existing rights, filed before commencement, are maintained and protected, ensuring a balanced phasing out.'[198]

The Australian Labor Party recognized that there were flaws with the regime. The Shadow Minister the Hon. Clare O'Neil – the member for Hotham – questioned whether the abolition of the innovation patent would be helpful for SMEs:

> The issue that Labor members of parliament raised in reaction to the bill is that the government was essentially proposing that we abolish this bill – that we take away something that exists specifically to assist small business – and not put anything in its place. We had a great problem with that. The reason for that is that the only alternative that would have left would be the standard patent systems. Standard patent systems are difficult: they're very complicated, it's very expensive to get one

[189] Sadler 2019.
[190] Hon. Karen Andrews MP 2020, 297.
[191] Hon. Karen Andrews MP 2020.
[192] Hon. Karen Andrews MP 2020.
[193] Hon. Karen Andrews MP 2020.
[194] Hon. Karen Andrews MP 2020.
[195] Hon. Karen Andrews MP 2020.
[196] Hon. Karen Andrews MP 2020.
[197] Hon. Karen Andrews MP 2020.
[198] Hon. Karen Andrews MP 2020.

> and it's administratively burdensome. That's fine when you can absorb all the expenses associated with that into a company which might have a whole legal department and might have its own intellectual property lawyer, but if you're running a small business with a couple of people on the books there is just no way you can put the effort into creating an application for something like that.[199]

O'Neil said that the Australian Labor Party had two proposals: 'The first was that we want to make sure that there's a proper, thorough statutory review done into the appropriateness of the IP system for small business, to make sure that we are thinking about these 2.2 million small businesses when we create a system and when we make legislative change.'[200] She also noted that the opposition party wanted there to be more time before the phase out of the innovation patent system: 'The second part of this was just giving small business a bit more time.'[201]

The Australian Labor Party's Graham Perrett worried: 'Removing the innovation patent scheme without any alternative mechanisms being put in place simply creates a significant and serious gap for small and medium businesses seeking support to access the patent system and to innovate.'[202]

The Australian Labor Party's Hon. Anika Wells MP expressed concerns that 'some law firms specialising in intellectual property are strategically using these very innovation patents as a way to increase uncertainty over the scope of rights for competitors and improve their own clients' bargaining position in patent disputes and to frustrate entry by competitors.'[203]

South Australian Senator Rex Patrick (of the Centre Alliance originally, and then later an independent) called for the retention of the innovation patent system.[204] He observed that SMEs would be hurt by the abolition of the regime. Likewise, Senator Malcolm Roberts of One Nation opposed the removal of the innovation patent system.[205]

Senator Matthew Canavan of the National Party, and a Minister in the Coalition Government closed the Senate discussion, observing: 'This bill will help ensure that Australia's intellectual property system remains fit for purpose into the future and balances the needs of innovators and users of technologies with those of the general public too.'[206]

The Australian Government has taken a further step in the process of phasing out the innovation patent which began in February 2020, with final applications accepted on 25 August 2021. There are no plans to reintroduce a second tier system

[199] Hon. Clare O'Neil MP 2020, 299.
[200] Hon. Clare O'Neil MP 2020.
[201] Hon. Clare O'Neil MP 2020.
[202] Hon. Graham Perrett MP 2020, 308.
[203] Hon. Anika Wells MP 2020, 305.
[204] Senator Rex Patrick 2019, 3092.
[205] Senator Malcolm Roberts 2019, 3099.
[206] Senator Matthew Canavan 2019, 3106.

of patents in Australia. The New Albanese Government of the Australian Labor Party has shown no enthusiasm for revisiting the question of innovation patents.

10.9 BREAKTHROUGH PATENTS

The new Albanese Government has a strong emphasis on the promotion of breakthrough inventions by Australian researchers in the private sector and the public sector. The Institute of Patent and Trademark Attorneys called for a reintroduction of a modified version of innovation patents.[207] However, the Australian Labor Party does not seem interested in revisiting the demise of the innovation patent system. Indeed, the Albanese Government is very much focused upon pioneering inventions – rather than incremental innovation.

The new Minister for Industry and Science, Ed Husic MP, gave a landmark address to the National Press Club, outlining the innovation policy of the new Albanese Government.[208]

Husic said that the Albanese Government was 'encouraging Australians to invest in new ideas and new businesses that could be our next big breakthrough.'[209] He highlighted in particular quantum technologies, robotics and sensing technologies, and clean energy generation and storage technologies. The Minister emphasized: 'Having coherent, national approaches to the development and uptake of key emerging technologies, are part of ensuring these technologies don't just deliver economic growth, but safeguard our national wellbeing.'[210]

Husic did note the Government's commitment to small to medium enterprises: 'For this manufacturing base to be sustained, we must provide more opportunities for Australian businesses to develop and market their products within Australia and overseas.'[211] He highlighted the Buy Australia plan, a significant procurement reform program. Husic said that this programme 'aims to level the playing field for SMEs, regional and Indigenous-owned businesses, and support the creation of new jobs.'[212] It is a different policy lever to support small to medium enterprises (as opposed to say a second-tier patent system).

In conclusion, Husic stressed: 'Our government is laying the foundation for Australia's future prosperity and wellbeing: a nation that makes things here and trades them with the world.'[213] He maintained: 'The decisions we are making today are all in pursuit of a vibrant future for science, industry and manufacturing in

[207] Sadler 2022.
[208] The Hon. Ed Husic MP 2022.
[209] The Hon. Ed Husic MP 2022.
[210] The Hon. Ed Husic MP 2022.
[211] The Hon. Ed Husic MP 2022.
[212] The Hon. Ed Husic MP 2022.
[213] The Hon. Ed Husic MP 2022.

Australia.'[214] Noting 'We come up with big ideas', Husic observed that 'as a country we must cultivate the courage to follow them through.'[215] Husic commented: 'We must make these investments in our human capital, in these big ideas, and in our technological potential, work together.'[216] He emphasized: 'The Albanese Government has faith in Australian know-how; faith in our people; faith in our ability to build things here.'[217]

10.10 CONCLUSION

Starting with the case of study of the innovation patent application for reinventing the wheel, this chapter has sought to chart the rise and fall of the innovation patent system in Australia. This historical study has certainly highlighted how perennial these debates have been around on second-tier patent systems in Australia. It has highlighted the initial enthusiasm and exuberance of policy-makers for the adoption of a second-tier utility patent system in Australia – with first the petty patent system, and then the innovation patent system. This chapter has also highlighted the dysfunction of the innovation patent system. The lack of proper substantive examination raised questions about the legitimacy and credibility of the system – most notably, with the innovation patent granted for a wheel. There has been debate about the limits of patentable subject matter for innovation patents – particularly in light of the *Myriad* dispute. There remain profound philosophical differences amongst judges as to how to define the limits and boundaries of patentable subject matter. There has also been angst about the threshold requirement for an innovative step under an innovation patent. There has been a concern about the abuse of innovation patents in infringement proceedings – with worries about the rise of patent trolls and gamesmanship amongst patent applications. The Productivity Commission, the Advisory Council on Intellectual Property, and IP Australia have all undertaken incisive reviews into the operation of the innovation patent regime, highlighting malfunctions in the system. This chapter has reviewed the efforts of law reform bodies to overhaul and eventually abolish the innovation patent system. It has observed that the new Albanese Government has focused on breakthrough innovation – rather than incremental innovation. The Australian story of the innovation patent is a cautionary tale for other jurisdictions in setting up and running a second-tier patent system. The disappearance of the petty patent system and the extinction of the innovation patent regime in Australia raises questions on whether utility models of patent protection will survive elsewhere around the world.

[214] The Hon. Ed Husic MP 2022.
[215] The Hon. Ed Husic MP 2022.
[216] The Hon. Ed Husic MP 2022.
[217] The Hon. Ed Husic MP 2022.