Australian Government
Productivity Commission

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National Competition Policy analysis 2025

Study report including appendices

November 2025

Acknowledgement of Country

The Productivity Commission acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, waters and community. We pay our respects to their Cultures, Country and Elders past and present.

About us

The Productivity Commission (PC) is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long-term interest of the Australian community.

The PC's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

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ISBN 978-1-74037-821-5 (online)
ISBN 978-1-74037-820-8 (print)

An appropriate reference for this publication is:
Productivity Commission 2025, *National Competition Policy analysis 2025*, Study report, Canberra November

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Request for advice

Dear Ms Wood

I am writing to request advice from the Productivity Commission (PC) to support continued pro-competitive reform under National Competition Policy (NCP).

As you know, in November 2024, the Commonwealth, state and territory treasurers agreed to a revitalised NCP, including a first tranche of priority reforms focused on easing cost-of-living pressures and reducing regulatory burden. This was supported by the Productivity Commission's work last year modelling the impacts of a revitalised NCP.

Treasurers are working through this year to develop other reforms that could be included under NCP. This includes the development of a national licence for electrical trades, as committed to in the 2025-26 Budget, and further work on adopting trusted overseas standards, already agreed as a priority reform in the NCP Federation Funding Agreement.

To support this work, I am requesting advice from the PC under s. 17 of the *Productivity Commission Act* in the form of analysis and modelling for the following set of reforms:

- an occupational licensing scheme for electrical trades and other occupations that provides for labour mobility nationally, with impacts identified by occupation, and recognising that as the scheme relates to high-risk occupations, it will address the need for high standards, while cutting red tape, delays and multiple fees for trades people
- adopting international and overseas standards in regulatory frameworks, and harmonising regulated standards across Australia, in priority sectors identified by governments and
- any other reform options identified as a priority by governments during the term of this study.

For each of these reforms, the PC should:

- detail implementation options (where relevant), and a recommended pathway to implement the reform and reasons for why this pathway is recommended relative to other implementation options
- provide an assessment of the economic and revenue impacts, including expected:
  - impacts on GDP, GSP, dynamic efficiency and other measures of economic progress and national prosperity
  - costs and benefits for Australian households, including
    - » estimated impacts on aggregate measures of incomes, prices and wages
    - » distributional impacts, where possible, including by age, gender, income and education, and any other relevant demographic classification (including impacts on First Nations Australians) and
    - » other impacts on consumers that may be difficult to quantify, such as improved quality of service or wellbeing, or greater choice.
  - impacts on relevant industries and sectors. To the extent possible, this should include estimated impacts on sectoral output, prices, productivity, employment and growth
  - net additional revenue accruing to the Commonwealth, state, territory and local governments.

The PC should provide an interim report, including initial modelling outcomes, to the Government by 31 July 2025 and a final report by 31 October 2025. The reports should include an explanation of the methodology and assumptions and sensitivity analysis showing how results change under different assumptions. In preparing these reports, the PC should undertake consultation, including with the Australian, state and territory governments.

Yours sincerely

The Hon Jim Chalmers MP

[Received: 27 March 2025]

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Acknowledgments

The Commissioners Professor Alex Robson, Commissioner Dr Catherine de Fontenay and Commissioner Martin Stokie express their appreciation to the staff who worked on the final report – Assistant Commissioner Benjamin Mitra-Kahn, who leads the study, and other team members including Roland Allen, Shane Chisholm, Owen Gabbitas, Harriet Gray, Diego Machillanda, Jonty Martin, Lachlan O'Neil, George Steel and Daniel Viljoen. Our thanks are also extended to Athena Wicks for administrative and project support.

Disclosure of interests

The Productivity Commission Act 1998 specifies that where Commissioners have or acquire interests, pecuniary or otherwise, that could conflict with the proper performance of their functions they must disclose those interests. The Commissioners working on this report have no interests requiring disclosure.

National Competition Policy analysis 2025

Key points

- **Mandatory standards and occupational licensing are two different ways that governments promote important public policy goals. But these regulations can also impose business costs, restrict trade, and impact competition.**
- **Aligning mandatory standards in Australia with international and overseas standards could add about $1.1 billion to $3 billion per year to the Australian economy (0.04% to 0.11% of GDP).**
- **Governments should review mandatory standards to improve alignment with other countries and across Australia, and to update outdated references to voluntary standards.**
  - Consistent with Australian Government policy, Australian Standards incorporated in legislation largely align with corresponding international standards when available. Of the estimated 893 current Australian Standards incorporated in legislation, 218 standards (24%) have an international counterpart. Of these, only 21 do not align with the international standards.
  - A significant proportion (675 standards or 76%) are bespoke Australian Standards with no corresponding international standards – 90% of these standards relate to three industries only. Where no international standard exists, it may be possible to reduce trade barriers by also allowing compliance, in the legislation, with appropriate standards of Australia's trading partners (overseas standards).
  - Only 26% of the 893 current Australian Standards are consistently incorporated by the Commonwealth and all states and territories.
  - An additional 659 Australian Standards incorporated in legislation are superseded, obsolete or withdrawn.
- **Governments should fund free access to standards incorporated in legislation.** Placing the law behind a paywall puts small businesses and startups at a competitive disadvantage and risks non-compliance.
- **Occupational licensing reform could promote labour mobility and improve productivity, as workers move to places where their skills are most needed and valued. Much has been gained through previous reform efforts, which created national licensing for health professions and automatic mutual recognition (AMR) for many other occupations. Introducing national licensing for high-risk occupations may not significantly affect productivity or GDP.**
  - Not all states have joined the AMR scheme (Queensland does not participate), and states and territories continue to exclude some professions. The scheduled independent evaluation of AMR should be instigated to help design the best policies to promote labour mobility.
- **Many of the benefits of harmonising licensing requirements between states come from standards being set at the level needed to effectively manage risks while not unnecessarily affecting labour mobility (or productivity).** If national licensing is accompanied by harmonisation to a more stringent set of standards, there will likely be detrimental effects to productivity.
- **Other reforms to promote competition were canvassed in the 2024 National Competition Policy Study and remain potentially important for further consideration.** High value reforms included: occupational licensing reforms to lower restrictions (being considered in the PC's *Building a Skilled and Adaptable Workforce* inquiry); public procurement reform; data sharing; and road user charging.

About this study

In March 2025 the Treasurer asked the Productivity Commission (PC) for advice on two reform areas associated with the national competition policy (NCP) reform program: occupational licensing and the

adoption of international and overseas standards. This followed an agreement between Commonwealth and state and territory treasurers in November 2024 to 'refreshed National Competition Policy principles that will shape an ongoing 10-year reform program' (Chalmers and Saffioti 2024) and a first tranche of reforms which were modelled by the PC (PC 2024).

To inform the development of the two additional reforms, the PC was asked to analyse and model:

- an occupational licensing scheme for electrical trades and other high-risk occupations that provides for labour mobility nationally
- adopting international and overseas standards in regulatory frameworks and harmonising regulated standards across Australia
- any other reform options identified as a priority during the study.

The PC was asked to assess the best way of implementing these reforms and to model their potential impact on government revenue and the economy.

As part of this study, the PC released a 'call for submissions' paper in May 2025 and an interim report in August, and received 149 public submissions and 7 brief comments.

Headline results

The PC modelled the economy-wide and government revenue impacts of the proposed reforms.

Standards reform could add an estimated $1.1bn to $3bn per year to the Australian economy. This is mainly driven by the potential benefits from aligning legislation incorporating a proportion of the 675 bespoke Australia-only Standards with overseas standards. That said, the economy-wide impacts of standards reform will depend on the nature, magnitude and source of differences between each Australian standard incorporated in legislation and international or overseas standards. Given this, the quantitative estimates rely on a number of assumptions (including the extent to which reform benefits importers or Australian producers).

For occupational licensing, the PC was asked for the impact of a national scheme for the electrical trades, and for other high-risk occupations. The PC found that national licensing of these occupations would be unlikely to significantly improve productivity at the national level. The benefits from national licensing (or better functioning AMR) are more likely to arise from better regulatory enforcement across state borders or from achieving cost savings for workers who already operate in multiple jurisdictions.

Standards

Standards touch on many aspects of everyday life. For example, if you are reading this report on a computer monitor purchased in Australia, it had to display an Energy Rating Label[1] and meet mandatory energy efficiency standards – including minimum standards for energy performance (set out in AS/NZS 5815.2:2013) and testing (according to AS/NZS 5815.1:2012).

A standard is a published document setting specifications and procedures designed to ensure products, services and systems are safe, reliable and consistently perform as intended (DIIS 2016a, p. 18). For example, standards can extend into quality, information, uniformity, professional conduct and interoperability

[1] Greenhouse and Energy Minimum Standards (Computer Monitors) Determination 2014 (Cth). Computer monitors are also regulated under state and territory electrical safety laws and by the Australian Communications and Media Authority.

(OECD 2011, p. 9). The associated conformity assessment judges whether a product, service, process, claim, system or person meets the requirements of a standard (ISO nd).

Standards and conformity assessment support trade and improve the way markets operate (PC 2006, p. 10). They can:

- reduce *transaction costs* by addressing the information asymmetry between buyers and sellers
- improve the *compatibility* (interoperability) of interconnected goods or services where network effects may be present (e.g. mobile phones)
- deliver *economies of scale* by facilitating mass production of certain related goods (e.g. appliances using batteries in standardised sizes), and
- diffuse *technology and innovation* by enabling all firms to access the technological knowledge contained in a standard.

In some markets, businesses have sufficient incentives to ensure these outcomes are achieved, and it will be readily apparent to consumers when they are not. In other markets, however, standards help create a common benchmark which enables socially acceptable market outcomes, provided that the incentives of standard-setting and conformity assessment bodies are aligned with social objectives (PC 2006b, p. 12).

Growing international integration of markets has increasingly led to a shift from domestic to international standard setting (Büthe and Mattli 2010, p. 440). Broadly, there are three types of voluntary standards: international, national and overseas standards (figure 1).

Figure 1 – Three types of voluntary standards

Standards are voluntary. Governments can however mandate standards through legislation. When developing legislation, governments can incorporate an existing standard, develop their own requirements, or task a body, such as Standards Australia, to develop a standard which they incorporate (PC 2006, p. 38). When governments make mandatory standards, they are free to adopt an international or overseas standard – indeed, Australian Government policy is to adopt an international standard, if one exists, unless it can be demonstrated that there is good reason not to do so (DIIS 2016b, p. 2). This places an onus of proof on policy makers to justify mandatory standards that depart from a relevant international standard.

Incorporated Australian Standards largely align with international standards

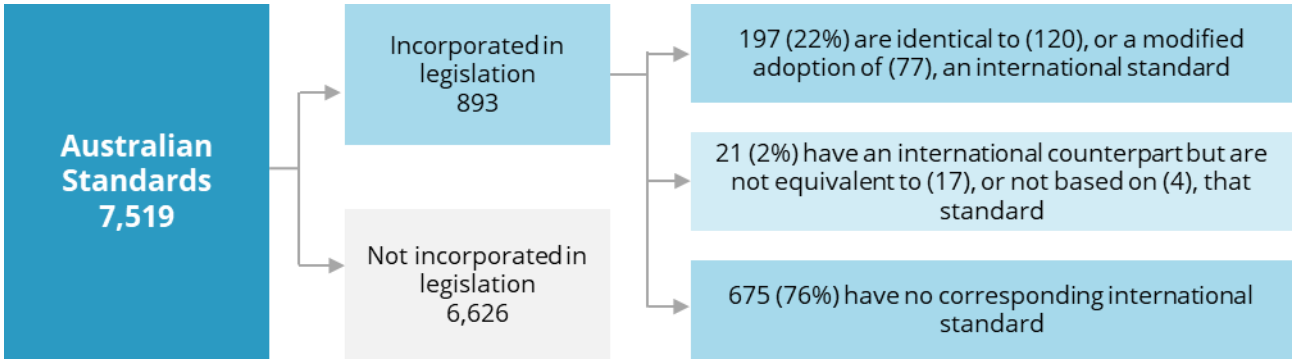
By and large, Australian Standards align with international standards where an international standard exists. But there are many Australian Standards that have no international counterpart, and Australian legislation incorporates many of these bespoke Australian Standards.

There were 7,519 current Australian Standards as of 10 July 2025.[2] Some 893 were incorporated in legislation in at least one jurisdiction. Of these, 197 (22%) were identical to, or based closely on, international standards – the difference in text generally being minor, for example technical modification for Australian electrical plugs (Standards Australia 2023, p. 118). Only 21 (2%) had an international counterpart but were not equivalent to that standard.

The majority (675 or 76%) were bespoke Australian Standards with no corresponding international standard (figure 2). Where no international standard exists, Australian governments may be able to reduce trade barriers by also allowing compliance, in the legislation, with appropriate overseas standards (regulated or voluntary) of Australia's main trading partners. For example, while there is no international standard for bicycle helmets, the two most widely used overseas standards are the European Union (EU) and United States (US) standards.

Figure 2 – Legislation incorporating Australian Standards[a]

Commonwealth, state and territory legislation incorporating Australian Standards (current or pending revision) as at 10 July 2025



a. Includes joint standards adopted by Standards Australia e.g. Australian/New Zealand Standards (AS/NZS) or Australian/International Organization for Standardization standards (AS/ISO).

Source: PC estimates based on Standards Australia (personal communication, 14 July 2025).

Of the 7,519 Australian Standards:

- only 1% had an international counterpart but were not equivalent to that standard,
- about 44% were identical to, or modified adoptions of, an international standard,
- about 55% had no corresponding international standard.

[2] The figure of 7,519 consists of 5,946 Standards and 1,573 other publication types (e.g. Handbook or Technical Specification). These other publication types are sometimes incorporated in legislation. For simplicity, this report refers to these publication types as 'Australian Standards'.

Legislation incorporating Australian Standards stands out as disproportionally using more bespoke Australian Standards (76% of the 893 incorporated Australian Standards are bespoke, whereas only 55% of all 7,519 voluntary Australian Standards are bespoke).

Finding 1
Australian Standards in legislation broadly align with international standards

Consistent with Australian Government policy, Australian Standards incorporated in legislation largely align with corresponding international standards when available. Of the estimated 893 Australian Standards (current or pending revision) in Commonwealth, state or territory legislation, 197 (22%) are identical to, or modified adoptions of, international standards. Only 21 (2%) have an international counterpart but are not equivalent to that standard. A disproportionate number (675 or 76%) are bespoke Australian Standards with no corresponding international standard. Where such regulation is necessary, allowing compliance, in the legislation, with appropriate overseas standards can reduce trade barriers.

Potential benefits of harmonisation

Review and aligning standards is a worthwhile reform, but it is difficult to assess its likely effect overall. Standards reform can result in both benefits and costs, and each mandatory standard should be assessed individually.

In some cases, greater alignment can create net benefits. For example, it can reduce the cost to business of importing, exporting or operating across multiple jurisdictions or improve the health and safety of the community. Aligning domestic and international standards (relative to having a bespoke national standard) promotes trade – although studies find that the magnitude of these effects vary (Blind and Jungmittag 2005; Schmidt and Steingress 2022, appendix B). Higher trade volumes can increase product diversity (Shepherd 2007). This in turn lifts consumer welfare and national income.

In other cases, adopting an international or overseas standard may result in a net cost. This can occur when a standard fails to address specific Australian risks or objectives, or when the costs of implementing a change outweigh the potential benefits.

Aligning standards can also create flow-on effects that are difficult to quantify. Flow-on benefits can include:

- consumer welfare gains from greater product choice and, through competition, lower prices
- productivity gains as Australian businesses gain access to new technology
- increased exports as cheaper production inputs make Australian exporters more competitive
- public welfare gains – for example, from earlier access to new or cheaper medical devices.

Flow-on impacts can also be negative. For example, if lower prices increase consumption of imported products that are less safe than products that meet Australian Standards.

This report estimates the net benefits of greater harmonisation by using:

- past Commonwealth Impact Analyses – these often include broader public welfare impacts, but rarely the flow-on effects to the Australian economy, and
- Computable General Equilibrium (CGE) modelling to estimate flow-on effects from lower business costs.

Using past Impact Analyses to estimate potential net benefits

Past Impact Analyses indicate the potential economic impact that harmonisation could have across the broad range of mandatory standards – from cement composition to clothes labelling – covered by this NCP reform.

From time to time, the Australian Government has taken action to align an Australian mandatory standard with international or overseas standards. Some of these actions were accompanied by an Impact Analysis, which included quantitative estimates of the benefits from reform. From 2012 to 2025, there were 18 Commonwealth Impact Analyses that considered alignment of Australian mandatory standards with international or overseas standards. The estimates of the net benefit ranged from negative $200 million to positive $215 million per year (appendix B).

On average, the assessments found a net benefit of $20 million per year. The distribution is uneven, however, with just a few standards having a large positive or negative economic impact. If outlying estimates are excluded from the sample, the average net benefit is reduced to $11 million per year (adjusted for inflation). Of this $11 million, 30% is from lower business costs, and 70% is from other community benefits such as health benefits due to fewer deaths, injuries or illnesses.

To estimate the benefits from reform, this report assumes that legislation can be expanded to allow compliance with international or overseas standards for a quarter (174) of the 696 current Australian Standards not aligned with an international counterpart (21) or where there is no corresponding international standard (675). Applying the adjusted average of $11 million per year to these 174 standards suggests a total benefit of $1.9 billion per year, if a standard incorporated by one state or territory impacts national supply. If a standard incorporated by one state or territory only impacts that jurisdiction, it reduces the potential reform benefit to $1.1 billion per year.

Often the quantitative estimates in the sample are only a partial analysis. Impact Analyses tend to quantify the direct effects of cost savings for business and government, and do not include quantitative estimates of downstream economic impacts.

Using CGE modelling to estimate potential net benefits

The direct effects of standards reform will produce economy-wide (downstream) effects which can be estimated using CGE modelling.

PC CGE modelling indicates that, if business costs are reduced by $0.6 billion per year (30% of $1.9bn per year):

- GDP would increase by up to $1.7 billion per year (assuming reform benefits only Australian producers)
- including other community (non-business) benefits of $1.3 billion per year (70% of $1.9bn per year) increases this to $3 billion per year (0.11% of GDP)
- the Consumer Price Index (CPI) would be expected to fall by up to 0.03%.

The economy-wide flow-on effects are primarily due to productivity improvements freeing up resources (e.g. labour and capital) for use throughout the economy. The lower bound (which assumes reform only reduces the price of imports) would remain unchanged. This is primarily due to cheaper imports leading to an increase in the volume of imports consumed. This increases consumer welfare but does not have the same flow-on effects on GDP as would productivity improvements.

Overall, the estimated net benefit from standards reform ranges from $1.1 billion per year (if reform benefits only importers in the states and territories where the standard is legislated) to $3 billion per year (if reform by one state or territory benefits only Australian producers in a national market). Table 1 shows this estimated net benefit range of $1.1 billion to $3 billion per year apportioned across states and territories on the basis of the economic size of each jurisdiction.

Table 1 – NCP reform net benefit range by state and territory[a]

Potential net benefit from expanding legislation incorporating current Australian Standards to allow compliance with international or overseas standards

	Lower estimate	Upper estimate
	$million p.a.	$million p.a.
NSW	340	916
Vic	251	675
Qld	223	599
WA	193	521
SA	61	165
ACT	23	62
Tas	18	47
NT	15	40
Total	**1,124**	**3,026**

a. Apportionment to states and territories is based on 2023-24 Gross State Product (ABS 2024, tbl. 1).

Source: PC estimates.

- This analysis assumes the lower business costs are in three sectors: manufacturing; professional, scientific and technical services; and construction. This is based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) codes for the 675 current incorporated Australian Standards with no international counterparts. However, it does not reflect the regulatory areas incorporating these standards.
- The low estimate also assumes that business cost savings accrue only to importers. The upper estimate assumes that the benefit accrues to all relevant domestic producers.

Without knowing the specific legislation that could benefit from greater harmonisation, it is not possible to know the impact on business costs for importers and domestic producers. Rather than taking a piecemeal approach to standards alignment, policymakers should review all the standards that apply to a particular sector, technology or area. Aligning certain standards could bring about hundreds of millions of dollars in benefits while aligning many others will have little effect. The key challenge for policymakers is finding the standards where alignment will have the greatest economic benefits.

Finding 2
Harmonising Australian mandatory standards with international or overseas standards could bring significant economic benefits

The potential net benefit could range from $1.1 billion per year (if reform benefits only importers in the states and territories where the standard is legislated) to $3 billion per year (if reform by one state or territory benefits all relevant Australian producers in a national market) or approximately 0.04% to 0.11% of GDP.

This assumes that legislation can be expanded to allow compliance with international or overseas standards for a quarter of the estimated 696 current incorporated Australian Standards not aligned with international standards. However, mandatory standards should be assessed individually. Most of the benefits from standards reform under NCP would likely be delivered from alignment in just a few high value areas.

Priority areas for review

There are five broad areas for review. These cover legislation:

1. incorporating the 21 current Australian Standards that have an international counterpart but are not equivalent to that standard
2. incorporating the 675 current Australian Standards with no corresponding international standard
3. that does not incorporate an Australian Standard but creates a trade barrier through misalignment with international or overseas standards
4. where there is inconsistency across Australian jurisdictions, and
5. incorporating out-of-date versions of standards.

Standards not aligned with an existing international standard

Despite the small number of internationally unaligned standards, these standards can create trade barriers when mandated. An example is the incorporated Australian Standard relating to sunscreen products, which adopts only one of the two international tests for determining 'broad spectrum'. This increases the cost of sunscreen products for the Australian public and makes Australian exporters less competitive (Accord Australasia, sub. 46, p. 8 and sub. 112, pp. 3-6). That said, Standards Australia submitted that most of these 21 standards fall into two categories: either the international standard would create material risk or require costly infrastructure transition if adopted, or there were timing mismatches between the Australian and international standard (sub. 147, p. 6).

Standards with no international counterparts

A potential focus area for the NCP reform agenda is the 675 incorporated current Australian Standards for which there is no international counterpart. As at 10 July 2025, 90% of the 675 current Australian Standards incorporated in legislation with no international counterpart were in three sectors: manufacturing; professional, scientific and technical services; and construction.

If this bespoke Australian regulation is necessary, it may be possible to reduce trade barriers by also allowing compliance, in the legislation, with appropriate overseas standards of specific jurisdictions.

Participants raised many potential sectors (appendix B) where Australian regulation could be more closely aligned across Australia or with international or overseas standards. For example, the NSW Small Business Commission referred to the need to recognise overseas assessments for the construction sector, providing the example of prefabricated and modular houses (sub. 18, p. 3). The Housing Industry Association cited the Singapore Product Listing Scheme which provides a list of recognised standards for fire safety products (sub. 78, p. 8).

Alignment with overseas standards is particularly relevant to new areas of regulation, such as artificial intelligence. As noted by Amazon, global standards in artificial intelligence are still developing and there is a risk of ending up with a patchwork of local, conflicting regulations (sub. 99, p. 5). The Business Council of Australia (sub. 53, p.7), CropLife Australia (sub. 137, p. 2), IKEA (sub. 59, p. 1) and Veolia (sub. 114, p. 2) provided examples of packaging and waste reduction requirements which diverge from overseas frameworks and are inconsistent across states and territories, imposing unnecessary compliance costs and undermining the efficiency and scalability of recycling and waste reduction efforts.

Legislation not incorporating an Australian Standard which creates a trade barrier

Rather than incorporate a voluntary standard, legislation can prescribe requirements developed by government. Such legislation can create a trade barrier through misalignment with international or overseas standards.

From 1995 to 2024, Australia made 846 regular notifications to the World Trade Organization (WTO) identifying proposed regulation where no international standard exists or the regulation is not the same as the international standard, and where the regulation may have a significant effect on trade.

Food safety standards and biosecurity are examples of areas of regulation that usually do not incorporate a standard made by Standards Australia but where there may be value in reviewing alignment with existing international or overseas standards. These two areas together accounted for over 75% of Australia's notifications to the WTO. The Australian Industry Group identified both food safety and biosecurity as priority areas for reform (sub. 98, p. 9). In relation to food safety, the Infant Nutrition Council provided the example of Australia's new labelling requirements for infant formula which harm the competitiveness of Australian manufacturers in export markets by not aligning with the international Codex Alimentarius and regulatory frameworks in the EU, US and Hong Kong (sub. 38, p. 1). However, Food Standards Australia New Zealand disagreed, saying that labelling requirements were 'consistent with international best practice and reflect longstanding policy positions to protect and promote breastfeeding' and that they had received no complaints regarding unintended trade impacts (sub. 133, p. 2).

In relation to biosecurity, Shipping Australia referred to the high cost being borne by Australians from international trading vessels being turned away by state authorities despite meeting global biosecurity rules and receiving federal clearance to enter Australia (sub. 58, p. 2). Accord Australasia submitted that the biosecurity regulations for formulated cosmetics, personal care and cleaning products appear to be focused on rigid rules and paperwork rather than managing risks (sub. 112, p. 8). In contrast, the Australian Council of Trade Unions submitted that, as for food safety, high biosecurity standards are significant positives for Australian workers and consumers, and protect the public and Australia's environment (sub. 119, p. 2).

Other sectors were also identified in submissions. For example, the NSW Small Business Commission said that it is not commercially viable to manufacture medical cleaning products in Australia due to the expense and time required to obtain new approvals from the Therapeutic Goods Administration, even when the product is identical to one already approved overseas (sub. 18, p. 3). Animal Medicines Australia said that unique Australian requirements add time, cost and complexity to registering animal health products, increasing the difficulty of getting new products to farmers (sub. 20, p. 3).

Inconsistencies across states and territories

Participants said that the major barrier facing Australian business when it comes to standards is not alignment with international standards, but interstate alignment. For example, the Carpet Institute of Australia said that the 'greatest inefficiencies in the flooring sector stem from inconsistent standards and regulations across Australian states and territories' and urged the PC to prioritise 'national alignment of regulated standards as the first step in reform' (sub. 6, p. 2).

Sometime standards differ across states and territories for good policy reasons. For example, the National Construction Code includes specific performance requirements that only apply in alpine areas, which are probably not relevant in the Northern Territory. However, the implementation of standards across Australia, whether aligned with international standards or not, is a mess.

The case of bicycle helmets (appendix B) illustrates the importance, in a national market, of all states and territories aligning regulation with overseas standards if Australians are to benefit from reform.

Even where regulation is aligned with international standards, inconsistent state and territory conformance assessment and post-market controls can lead to unnecessary compliance costs and reduce competition (box 1).

Box 1 – Case study: electrical safety

The regulation of household electrical goods illustrates how inconsistent state and territory legislation can undermine alignment with international standards.

Approximately 85% of Australian Standards for household electrical goods reference or appear to reference international standards (WA Department of Energy, Mines, Industry Regulation and Safety, sub. 47, p. 2). Participants in this study raised concerns about Standards Australia's technical committees adopting Australian Standards that inappropriately modify international standards. However, their most significant concern was Australia's fragmented electrical product safety framework.

Each state and territory has its own legislative scheme. Suppliers of electrical products, both within Australia and importers, must comply with the Electrical Equipment Safety System, the NSW system, various other state and territory requirements, and the Australian Consumer Law product safety regime.

There is no obvious benefit to Australians from this fragmented system. Australia relies on imported electrical products, supply is national, and demand is increasing in response to advances in telecommunications and electronics technology, and the shift to low-carbon solutions.

The Australian Industry Group estimated that these inconsistencies cost consumers millions each year. Differing requirements in the treatment of products when a standard is changed costs in the range of $0.55 million to $4 million. Other differences in marking requirements and dual certification add many more millions in unnecessary costs (Australian Industry Group 2022). Despite over a decade of industry engagement with governments, harmonisation remains unsolved (sub. 98, p. 10).

A 2024 review initiated by the Council on Federal Financial Relations recommended, among other things, updating the framework to achieve consistent requirements across jurisdictions (Finance nd).

National alignment should be a priority. Of the 893 Australian Standards (current or pending revision) in Commonwealth, state or territory legislation, only 26% are applied consistently (220 are incorporated only in Commonwealth legislation and 9 are incorporated by all states and territories). For the remaining 664 (74%), there is considerable variety in which jurisdictions incorporate each standard.

Study participants identified many other potential policy areas for standards reform (appendix B). For example, the Australian Logistics Council described the framework for freight vehicles as 'a patchwork of national guidelines, state regulations, and local government discretion' which creates operational inefficiencies, particularly at jurisdictional boundaries, in turn affecting ports, intermodal terminals, and rail hubs (sub. 28, p. 2).

Outdated incorporated standards

There are many references in legislation to outdated Australian Standards. As at 10 July 2025, Australian Standards were incorporated 3,743 times in Commonwealth, state or territory legislation (sometimes the same standard is referenced by multiple jurisdictions or in more than one law in a jurisdiction). Of these, 1,403 (37%) are references to Australian Standards that are superseded, obsolete or withdrawn.

In some cases, legislative reference to an outdated standard is deliberate, or the legislation allows compliance with the latest version of the specified standard (known as 'in force from time to time') or with an equivalent standard. In other cases, however, reference to outdated standards could be a problem. For example, the Australian mandatory standard for bunk beds was introduced in 2003 and continues to

reference the 1994 version of the Australian Standard even though the voluntary standard was updated in 2003 and again in 2010 (Standards Australia, sub. 76, p. 11). Governments should review and update legislation to reference the appropriate version of standards.

Recommendation 1
Priority areas for reviews of standards

Australian, state and territory governments should review mandatory standards to improve alignment with other countries and across Australia, and to update outdated references to voluntary standards.

Australian, state and territory governments should prioritise reviews in five areas:

- **non-alignment with international standards:** review legislation incorporating Australian Standards that have an international counterpart but are not equivalent to that standard
- **bespoke Australian standards:** review legislation incorporating Australian Standards with no corresponding international standard – 90% of these standards are in the manufacturing; professional, scientific and technical services; and construction sectors
- **government-developed requirements:** review areas of legislation that do not incorporate Australian Standards but create trade barriers through misalignment with international or overseas standards – such as food safety and biosecurity
- **state and territory inconsistency:** review legislation that is inconsistent across jurisdictions and agree to harmonise mandatory standards across Australia, and
- **outdated standards:** update legislation to enable compliance with current versions of incorporated standards where appropriate.

Implementing standards reviews

The Commonwealth, states and territories are developing Competition Reform Guidelines for recognising and adopting voluntary standards (including international and overseas voluntary standards) in legislation (Treasury 2025). The steps set out in the draft Guidelines (which include reviewing the regulatory objective, policy options, appropriate international and overseas standards and consistency with other Australian jurisdictions) provide a useful roadmap for implementing recommendation 1.

Priority sectors

In relation to priority sectors, almost 90% of the 3,743 references in Commonwealth, state or territory legislation to Australian Standards (current and outdated) come within 10 regulatory areas (as at 10 July 2025). These cover 6 of the 7 potential priority areas identified by the Treasurer following the meeting of the Council on Federal Financial Relations in September 2025: building and construction, electrical products, resource management, transport, renewable energy, and consumer goods (Chalmers 2025).

Key areas for review by Australian, state and territory governments under NCP should include:

- **Construction** – 138 (20%) of the 675 current incorporated Australian Standards with no international counterpart are in this sector. Although there is alignment in policy objectives to protect public and worker safety and the environment, regulation remains fragmented across states and territories. Misalignment with overseas standards may be hindering uptake of modern construction methods such as prefabricated and modular houses. Removing regulatory barriers can improve productivity and help Australian governments deliver on commitments to boost housing supply and affordability.

- **Household electrical goods** – Around 196 Australian Standards relate to household electrical goods, of which 85% reference or appear to reference international standards. A key concern is the additional costs imposed by inconsistent state, territory and Commonwealth requirements for conformity assessment and post-market controls. This inconsistency has no obvious benefit, given Australia relies on imported electrical products, supply is national and demand is increasing as Australia shifts to a digital and net zero economy.
- **Packaging and waste reduction** – The transition to a net zero and circular economy requires the development of new standards covering everything from electric vehicles to hydrogen energy (Standards Australia 2022, p. 7). Packaging and waste reduction are important reform areas that impact multiple sectors ranging from food products to agricultural and veterinary chemicals. Currently, standards in this area diverge from major frameworks, such as the EU's Packaging and Packaging Waste Directive, and are inconsistent across states and territories. This is creating confusion for national businesses, imposing unnecessary compliance costs and undermining the efficiency and scalability of recycling efforts.

Recommendation 2
Sector-specific standards reviews

Areas for review by Australian, state and territory governments under NCP should include mandatory standards relating to construction, household electrical goods, and packaging and waste reduction.

Improving mandatory standard processes

Governments should work with Standards Australia's technical committees where appropriate to review mandatory standards, however the onus of proof should continue to be on policy makers to justify mandatory standards that depart from international norms and create barriers to international or interstate trade.

Study participants were concerned that governments and regulators could create parallel systems that undermine Standards Australia's expert, consensus driven approach. However, there are potential issues with the operation of Standards Australia's technical committees. For example, Lighting Council Australia said that the justification for Australian-specific standard variations is often weak and that undeclared conflicted interests often advocate for variations (sub. 69, p. 3). The process for developing or revising an Australian Standard where an appropriate international or overseas standard already exists can also delay products entering the Australian market and duplicate effort, as in the case of vehicle-to-grid technology (Menezes 2025, p. 64).

Standards Australia is piloting an 'equivalent standards' initiative as part of its adoption framework to more systematically consider overseas standards where international standards do not exist (sub. 147, pp. 3-4). Standards Australia is also reviewing its technical committee processes to strengthen governance, monitor conflicts of interest, and ensure impartial, outcomes that are in the public interest (sub. 147, p. 3).

To further strengthen international alignment, the draft Competition Reform Guidelines (including the principle on recognising appropriate overseas standards) should be reflected in the Australian Government's Memorandum of Understanding with Standards Australia, and in Australian, state and territory government guidelines for assessing the impact of regulation. Alignment with international and overseas standards could also be reviewed as part of regular reporting by Standards Australia and a stocktake of Australia's regulation.

Access to standards

Free access to incorporated standards is central to the NCP goal of removing barriers to competition. Placing the law behind a paywall imposes a fixed cost that puts small businesses and startups at a competitive disadvantage, risks non-compliance and undermines safety.

In 2006, the PC recommended that access to incorporated standards – the law of the land – be lower cost or free.

> Mindful of the fundamental principle of transparency and accessibility of legal requirements, the Australian Government and other governments (through their agencies) should fund free or low-cost access to Australian Standards made mandatory by way of regulation. (PC 2006, p. 130)

The financial cost of accessing incorporated standards continues to be an issue nearly 20 years later, and was a common theme in submissions. For example, TAFE Directors Australia referred to the significant fees required to provide students with the access to standards they need for their training (sub. 22, p. 3). The NSW Small Business Commission provided the example of a small electrical engineering business needing to purchase hundreds of standards for a single infrastructure project, at a total cost that exceeded the project's profit margin (sub. 18, p. 4). The Australian Construction Industry Forum added that around 120 standards are referenced in the National Construction Code and these standards often reference further standards, which means that a business may need to access many hundreds of standards (sub. 44, attachment p. 9).

Private standard-setting bodies sell the standards they develop to cover their operating costs. This is typically why some argue governments cannot give away free access to standards. In other countries, some standards bodies now charge for creating and adopting standards, so they can rely less on revenue from selling standards to users. It can also increase the benefits of a standard – in the Netherlands, free access to an incorporated standard typically increases usage of the standard by six to ten times (appendix B).

Governments who mandate the use of standards should bear the fiscal cost of facilitating free access to standards so that it is considered in any assessment of the costs and benefits of proceeding with a mandatory standard (PC 2006, p. 129). As the PC previously argued:

> Indirectly, therefore, the cost to the Government of subsidising access could perhaps, over time, be expected to reduce the number of regulatory references, by providing a further incentive to ensure standards are referenced only when clearly justified. (PC 2006, p. 128)

As an indication, 1,263 (16%) of Standards Australia's 7,991 voluntary standards (including those marked 'available superseded' in addition to 'current' and 'pending revision') are incorporated in legislation. Providing free public access to these incorporated standards could require a government subsidy to Standards Australia of around $7 million per year. This represents 16% of Standards Australia's royalty and e-commerce revenue ($45 million) for 2023-24.

This estimate does not account for different list prices, usage and curated subscriptions of standards. Standards Australia supported the draft recommendation on free access to incorporated standards but advised that the $7 million per year estimate is not an accurate reflection of costs (sub. 147, pp. 3, 5). The total funding required would be a matter for agreement between Standards Australia and the relevant Australian Government central agencies. Other countries can provide a useful benchmark. For example, the funding model used in the Netherlands could suggest a cost for Australia of about A$13.8 million per year (appendix B).

Any funding model should:

- apply to all standards incorporated in legislation rather than excluding 'deemed to comply' standards
- provide full access rather than a more restricted form – while virtual read-only should be cheaper for government, participants in this study identified the need for greater functionality to support compliance

- apply to AS and AS/NZS publications and other publications available on Standards Australia's website
- use a simple licensing fee paid by Australian governments to Standards Australia (e.g. $5,635 per year (2023-24) indexed to CPI per incorporated standard), rather than a more complex methodology, and
- apply to Commonwealth, state and territory laws – to encourage national consistency, the Commonwealth should pay the full fee for a standard incorporated in Commonwealth law or intergovernmental schemes promoted by the Commonwealth, with the states and territories paying for other standards that they incorporate.

Applying these principles to 1,263 incorporated AS and AS/NZS publications ('available but superseded' in addition to 'current' and 'pending revision') suggests the Australian Government would be responsible for about half of the funding.

Recommendation 3
Governments should fund access to standards in legislation

Governments should facilitate free access to standards incorporated in legislation. The cost of providing this access should be considered in any assessment of the costs and benefits of proceeding with a mandatory standard.

Occupational licensing

Occupational licensing places restrictions on who can practice an occupation in order to protect worker safety and resolve safety and information asymmetry issues for consumers. About one in five occupations in Australia, representing approximately 16% of employment, require workers to have some formal license, registration or accreditation to provide some, or all, of the services associated with that occupation (table 2).

Table 2 –Proportion of Australian occupations that require a licence
2021

	Number of occupations	Employment
Licence required	181 (18%)	1,883,220 (16%)
Licence may be required	148 (15%)	1,835,820 (15%)
Licence not required	685 (68%)	8,405,370 (69%)
Total	**1,014 (100%)**	**12,124,410 (100%)**

Source: PC estimates based on ABS Census 2021 and JSA (2025).

Occupational licensing requirements may hinder productivity growth by restricting the labour pool and impeding the allocation of labour towards more productive firms. This reduction in productivity is experienced by the worker whose wage opportunities are diminished, within individual firms and between firms in an industry. The compliance costs of licensing requirements act as barriers to entry, and this lowers the competition from new market entrants (PC 2023, 2024).

The PC was asked to look at the benefits of creating a national labour market through national licensing, or similar mechanisms, with a particular focus on high-risk professions.

High risk can be defined by risks to workers and consumers.

- High (real or perceived) risk of worker injuries or deaths is the metric for whether a profession is high risk for workers. This is often used as justification to exclude occupations from automatic mutual recognition (AMR).
- The high risks to consumers generally arise in markets for credence goods or services (where consumers cannot directly judge the quality of a product or service without the assistance of an expert, such as dentistry), and licensing can mitigate this by acting as a signal of safety and quality.

Where these criteria overlap is what the PC would consider a high-risk profession. The PC's current inquiry into *Building a Skilled and Adaptable Workforce* is considering the issue of licensing and other occupational entry requirements more broadly. This inquiry identified in its interim report that for many low-risk occupations, licensing requirements may be overly restrictive while offering limited benefits to safety outcomes (PC 2025, p. 52). It also found that qualification requirements can often pose the most significant barriers to entry for many occupations.

Approaches to licence interoperability

There are three ways of addressing different licensing schemes across jurisdictions to allow for free labour mobility – mutual recognition, AMR and national licensing schemes.

Mutual recognition allows workers who have a licence from one jurisdiction to obtain a licence in another jurisdiction without needing to meet all the requirements to obtain the licence, even though these may differ across jurisdictions. This was established in Australia through the *Mutual Recognition Act 1992* (Cth) which set out the framework for the mutual recognition of occupational licences across jurisdictions.

AMR allows licensees from participating jurisdictions to work in any jurisdiction by simply notifying the jurisdiction where they wish to work that they possess a license from another jurisdiction. This differs from just 'mutual recognition' as licensees do not need to pay a fee to obtain a new license or register with the new jurisdiction, they simply need to notify the relevant regulator. Previous PC (2009, 2015) reviews of mutual recognition arrangements have indicated that the mutual recognition of licences has been able to alleviate labour shortages and assist interstate labour mobility. In 2020, state and territory governments (except Queensland) established a system of AMR.

The ability to undertake disciplinary actions is contested in the AMR space. In their submission to the Mutual Recognition Amendment Bill 2021 (Cth) which introduced AMR, the Queensland Electrical Safety Commissioner (2021) raised concerns over the ability to undertake disciplinary actions against workers who worked in Queensland under AMR but held an interstate licence. This sentiment was echoed by the Electrical Trades Union of Australia (sub. 56, p. 11) in their submission to this study.

Not all licenced occupations are covered by either mutual recognition or AMR as states and territories often exempt high-risk occupations. A national licensing system is intended to overcome such exemptions, and differs from the current state-based licensing system in three key ways.

First, licences under a national licensing scheme are agnostic as to which jurisdiction license holders operate in. This is similar to the goal of AMR, which reduces, as much as possible, the compliance costs for workers to operate in different jurisdictions while maintaining state specific licensing.

Second, there are nationally agreed standards, instead of these being specific to jurisdictions. The difficulty in getting agreement on standards is a real and ongoing issue – it was achieved for some health professions in 2010 as part of the National Registration and Accreditation Scheme, and for paramedics under that scheme in 2018, but was not achieved for the proposed National Occupational Licensing Scheme (which

was abandoned in 2013). There are also risks for some jurisdictions when the agreed uniform standard is more restrictive than their current standard.

The third is that a national registration system would replace the state-based registration system. Not only is a state-based registration system more costly, but it also creates compliance issues as it can be difficult to consistently implement and communicate disciplinary actions. Energy Skills Australia (sub. 13, p. 5) stated the inconsistent enforcement of compliance requirements is a weakness of AMR and suggested that national licensing would allow for a unified approach to compliance enforcement. Safe Work Australia (sub. 9, p. 1) said that:

> A national occupational licencing scheme for other types of skilled work is likely to improve [work health and safety compliance] across Australia by creating a consistent, nationally standardised system for assessing and verifying worker competency.

Estimating the economic benefits of reform

To understand the benefits of reform for electrical trades specifically, and to high-risk occupations generally – where there are risks to both workers and consumers – first the professions in scope must be identified and then the magnitude of the resulting benefit to labour mobility and productivity must be quantified.

The PC identified high-risk occupations by analysing SafeWork Australia data on work-related deaths and compensation claims. Occupations with above-average costs of unmitigated risk per worker (compared with all occupations) are considered high-risk, serving as a proxy for the level of occupational risk deemed acceptable by society. To assess risk to consumers, the PC has used a credence goods framework to classify the information asymmetries that a consumer may face when purchasing a good or service from a licensed occupation. Overall, 24% of all workers in Australia are employed in an occupation which falls in one or more of these risk categories.

Previous PC research has investigated the effects of labour mobility arising from occupational licensing reform. The PC's Review of Mutual Recognition Schemes (2009, p. 73) modelled the effects of greater interstate labour mobility for licensed occupations in the context of a 10% shock to resource export prices, assuming labour was perfectly mobile, which resulted in a GDP increase of 0.3%. Reforming occupational licensing would reduce the cost of complying with state legislative requirements when moving interstate and thus would improve labour mobility by a proportion of this effect. The Decision RIS produced as part of the process to establish the NOLS (COAG National Licensing Steering Committee 2013, p. 90) assumed this proportion to be 10%. This estimate was produced before the introduction of the AMR scheme and so changes in the current environment may have a much smaller impact. The PC report on Geographic Labour Mobility (2014, p. 377) estimated the effect of an interstate border on labour mobility and found that needing to cross a state border reduced the movement of workers by 77%.

To estimate the specific productivity effect of the reform, the effect of introducing national licensing for paramedics was examined. In 2018, paramedicine stopped being licenced at the state level and became included in the National Registration and Accreditation Scheme. This allows for a natural experiment whereby the wages of paramedics and other occupations can be compared before and after the introduction of national licensing in order to estimate the treatment effect of moving to national licensing for paramedics[3].

The resulting analysis shows that the introduction of national licensing for paramedics had an insignificant effect on wages.

[3] This analysis uses the Longitudinal Linked Employer-Employee Dataset and applies a difference in difference model with individual fixed effects.

While in theory national licensing reform would positively affect GDP, the productivity impact is too small to produce a robust estimate of this effect.

While the impact on productivity and GDP may be minor, national licensing has the potential to increase compliance among licensed workers who operate in multiple states, and may be worth pursuing on that merit. If the goal is to increase productivity for licensed workers, reforms such as those considered in the Building a Skilled and Adaptable Workforce inquiry (PC 2025) are likely to have greater effect.

Implementing reform

There are real benefits with a unified market for labour in Australia, which goes to the core of the Agreement on National Competition Policy. Given that most jurisdictions have signed up for AMR, the marginal difference between it and national licensing is not clear.

The Business Council of Australia (sub. 53, p. 3) said that despite the introduction of AMR, there remain barriers to interstate labour mobility:

> Many occupations — including electricians and plumbers — are exempt from AMR in several states, and Queensland does not participate at all, undermining the scheme's national impact.
>
> Exemptions, inconsistent licensing standards, and varying insurance and regulatory requirements across states create a fragmented and burdensome system. Employers must navigate multiple regimes, while workers face duplicated requirements, added costs, and delays — even when already qualified. This patchwork limits the efficient deployment of skilled workers, particularly during shortages or emergency responses.

If jurisdictions exclude professions from AMR, then national licensing presents an opportunity to reap the benefits of a unified labour market. The *Intergovernmental Agreement on the Automatic Mutual Recognition of Occupational Registration* calls for an 'independent evaluation by a body such as the Australian Government Productivity Commission' into how AMR has been implemented (National Cabinet 2020, p. 5). The Australian Government should action this recommendation so that thorough consideration can be undertaken of the best policies to promote labour mobility nationally.

Recommendation 4
The Australian Government should commission the scheduled independent evaluation of Automatic Mutual Recognition

The Australian Government (in consultation with State and Territory Governments) should instigate the agreed independent evaluation of the Automatic Mutual Recognition scheme.

In the meantime, state and territory governments should remove remaining exemptions to Automatic Mutual Recognition (or join the scheme if they have not already done so).

In the electrical trade industry, there is already overlapping AMR through the provisions of the *Automatic Mutual Recognition Act* and the *East Coast Electricians Scheme*. The *East Coast Electricians Scheme* provides workers with similar benefits to AMR, but only applies to electricians in New South Wales, Victoria, Queensland and the ACT, albeit with some exceptions in some jurisdictions. There may be an opportunity to leverage this combination to generate what would effectively be a national licence, if each regulator was automatically notified when someone was registered in one jurisdiction, and the scope of the agreement was implemented consistently.

There appears to be potential models to explore here, without needing to overcome the administrative cost of creating a licensing scheme with unified requirements for the electrical trades.

On 5 September 2025, the Australian and state and territory treasurers affirmed their commitment to a 'national licence scheme for electrical tradespeople to remove unnecessary mobility barriers without reducing standards' as well as an intent to identify other trades where national licensing may be appropriate, particularly in construction and housing (Chalmers 2025). Many of the benefits of harmonising licensing requirements between states come from standards being set at the level needed to effectively manage risks while not unnecessarily affecting labour mobility (or productivity). AMR avoids the need to standardise, which may reduce the overall benefits, but if standards are raised beyond what is necessary, a licensing scheme may be more detrimental than beneficial.

Additional NCP reforms

The PC considered a range of other competition reforms in the 2024 study (PC 2024). Of the 26 competition reforms the PC was asked to analyse at that time, the top 5 in terms of their impact on GDP were:

- occupational licensing reform to lower restrictions ($5 to $10 billion)
- tariff removal ($3.4 to $6.8 billion)
- reform to promote banking competition ($3.5 to $6.5 billion)
- modern methods of construction ($2.9 to $5.7 billion)
- restraint of trade clauses ($2.6 to $5.1 billion).

Tariffs, banking competition and restraint of trade clauses are all Australian Government reforms not suitable for an intergovernmental process. Broader occupational licensing reform is being considered in the PC's current inquiry into *Building a Skilled and Adaptable Workforce* (PC 2025) and the Government is currently in the process of legislating for restraint of trade changes (Australian Government 2025, pp. 24–25).

The next set of reforms the PC would highlight for inclusion in forward NCP reforms are public procurement reform, where governments could save up to $4.7 billion based on the 2024 study (which was assumed to be spent, but could be returned to households, making it a potentially significant reform with a relatively large impact on GDP). The second reform area likely to provide a significant impact on GDP would be data sharing reforms across jurisdictions with estimated benefits of up to $1.6 billion. The third area for reform is road user charging (box 2).

Box 2 – Road user charging reform

Road use – whether from private vehicles or freight – comes with a range of social costs which are not captured by the private costs facing a road user. These include gradual physical damage to road infrastructure, congestion, and pollution and emissions. Although there are other mechanisms which can be used to reduce the negative effects of road use, one approach is to include pricing mechanisms for each of these as part of a distance-based road user charge

Giving drivers a clear signal about the cost of infrastructure gives them an incentive to use it more efficiently. Moreover, there will be a signal to infrastructure providers where changes in road capacity are warranted. For these reasons, the PC has recommended road user charging (and wider road infrastructure reform) many times in the past.

Box 2 – Road user charging reform

The growth in use of electric vehicles has added further impetus for reform.

The Commonwealth, state, territory and local governments spent around $39 billion in 2022-23 on the maintenance, upgrade and expansion of Australia's road network (BITRE 2025, p. 50). Funding for road infrastructure through road taxes (broadly defined) is collected by all levels of government and totalled around $31 billion in the same year (BITRE 2025, p. 50). Over the past couple of decades, investment in road infrastructure by the Australian Government has averaged around 30% of fuel taxes collected (PBO 2022, p. 4).

Fuel excise applies to all petrol and diesel vehicles as a charge of 50.8 cents per litre – it does not differentiate between these types of vehicles. There are various Commonwealth taxes and a different system of vehicle registration and transfer duty in each state and territory. Owners of fully electric vehicles do not pay fuel excise, and in some states, registration charges for these vehicles are reduced to reflect the net zero emissions nature of these vehicles. As a result, their contribution to road costs is limited.

A road user charge is also levied on heavy vehicles on public roads on a per litre of diesel used basis. There are also registration charges that depend on truck type, number of axles and type of trailer. The government provides a tax credit on the fuel excise to some industries – such as mining and agriculture – where they do not use public roads.

On 5 September 2025, the Australian and state and territory treasurers agreed to pursue further work on a road user charge for electric vehicles (Chalmers 2025). Several jurisdictions around the world, including New Zealand, Austria and Germany, have introduced distance-based charges for road users. When these schemes are based on a user-pays principle for cost recovery, heavy vehicles are typically the focus, as lighter vehicles contribute minimally to road wear. The limited number of submissions to this study on this topic broadly support the introduction of a road user charge based on vehicle mass and distance travelled.[4]

A future road user charging scheme could seek to balance cost recovery and disincentivising other costs associated with road use. A charge that recovers all road costs from freight vehicles based on distance travelled could lead to prohibitively high costs for many freight vehicles. A revised multi-part charge with a fixed component plus a variable component (with layers for the cost of road damage, emissions and congestion) is likely to balance these competing objectives. A layered variable charge was supported by Engineers Australia (sub. 128, p. 6)

Governments should consider maintaining neutrality between alternative types of vehicles wherever possible, outside of the social and environmental costs they might cause. That is, caution is needed not to inadvertently create incentives for specific types of vehicles. On this, Master Electricians Australia submitted that the government should refrain from penalising EV users in road user charges and not penalise business based in regional areas with greater travel needs (sub. 116, p. 12).

The implementation of road user charging reforms should be informed by a detailed exploration of the potential effects of different road user charging schemes and enable their comparison.

[4] Australian Automobile Association (sub. 132), Cement and Concreate Aggregates Australia (sub. 115), and Engineers Australia (sub. 128).

On 30 September 2025, the Treasurer requested the PC undertake a study of the impacts of heavy vehicle reforms, aimed at increasing productivity for all heavy vehicles and supporting the uptake of heavy zero emissions vehicles (HZEVs) (PC nd). In the 2024 NCP study, the PC estimated the benefits of reforms to lower barriers to the adoption of electric trucks and buses to be $748 million (with additional benefits from emissions reduction) (PC 2024, p. 104). However, in the new study, the PC will look at a much wider range of reforms to heavy vehicle regulations:

- Increasing heavy vehicle road access to reduce emissions and increase productivity.
- Accelerating the establishment of a National Automated Access System to streamline road access decision making for all heavy vehicles.
- Accelerating implementation of the National Heavy Vehicle Driver Competency Framework.
- Removing administrative and regulatory barriers to improve the availability of HZEV charging infrastructure.
- Reducing or removing curfews for HZEVs (PC nd).

The PC will consult with businesses, communities and governments on these reform areas over the next six months and deliver a final report for the study to the Australian Government by 30 June 2026.

Appendices

A. Public consultation

This appendix outlines the consultation process undertaken and lists the organisations and individuals who participated in the study.

The PC received the letter of advice for this study on 27 March 2025. A call for submissions was released on 9 May 2025 inviting public submissions and brief comments. The Interim report was released on 7 August, and further submissions and brief comments were sought.

In total the PC received 149 submissions (table A.1) and ten brief comments. The submissions and brief comments are available at: www.pc.gov.au/inquiries-and-research/competition-analysis-2025/submissions/.

During the study, the PC held consultations with Australian, state and territory government agencies, industry and international organisations (table A.2).

The PC would like to thank everyone who participated in this study.

Table A.1 – Submissions

Participants	Submission no.
Accord Australasia	46,112
Airconditioning and Mechanical Contractors Association of Australia	63,126
Alinta Energy	45
Amazon Australia	99
Animal Medicines Australia	20
Australian Automobile Association	132
Australian Automotive Aftermarket Association (AAAA)	127
Australian New Zealand (ANZ) Biochar Industry Group and ANZ Biochar Policy and Working Group	65,72
Australasian BIM Advisory Board	43
Australasian Bioplastics Association	15,105
Australasian Corrosion Association Inc	14,113
Australasian Fire and Emergency Services Authorities Council (AFAC)	39
Australasian Injury Prevention Network	30
Australasian Veterinary Boards Council	90
Australian Cablemakers Association	124
Australian Chamber of Commerce and Industry	87
Australian Competition and Consumer Commission	101,144
Australian Construction Industry Forum	44
Australian Council of Trade Unions (ACTU)	51,119
Australian Forest Products Association	67
Australian Fork and Industrial Truck Association	140
Australian Glass and Windows Association (AGWA)	42.108
Australian Industry Group	98,135
Australian Institute for Teaching and School Leadership Ltd (AITSL)	89
Australian Institute of Building Surveyors	55,145
Australian Institute of Refrigeration, Airconditioning and Heating (AIRAH)	24,131
Australian Logistics Council	28,118
Australian Meat Industry Council	134
Australian Organic Limited	73
Australian Refrigeration Council	23,146
Australian Retail Association and National Retail Association	79,144
Australian Security Industry Association Ltd	91
Australian Small Business and Family Enterprise Ombudsman (ASBFEO)	102

Participants	Submission no.
Australian Steel Institute (ASI)	7
Australian Toy Association	82
Australian Travel Industry Association (ATIA)	70
Australian Veterinary Association	95
Auto Desk	40
Barker, Ruth Dr	68
Bicycle Industries Australia	68
Britax Childcare	111
Building Products Industry Council (BPIC)	106
Bureau of Steel Manufacturers of Australia	27
Bus Industry Confederation	60
Business Council of Australia	53
Caravan Industry Association	12
Carpet Institute of Australia	6
Cement Concrete and Aggregates Australia and the Cement Industry Federation	61,115
Chamber of Commerce and Industry Western Australia	85
Chamber of Minerals and Energy WA	49
Committee for Economic Development of Australia (CEDA)	149
Commonwealth Scientific and Industrial Research (CSIRO)	62,142
Complementary Medicines Australia	138
Consult Australia	4,122
Consumer Action Law Centre	93
CropLife Australia	137
Culvenor, John	83
Department of Agriculture, Fisheries and Forestry	97
Department of Energy, Mines, Industry Regulation and Safety	47
Department of Health, Disability and Ageing	121
Design Matters National	84
Electrical Trades Union of Australia (ETU)	56, 75,141
Energy Skills Australia	13
Engineered Wood Products Association of Australasia (EWPAA)	57
Engineers Australia	74,128
Fire Protection Association Australia	54
Food Services Australia New Zealand	133
Gas Appliance Manufactures Association of Australia	77

Participants	Submission no.
Gas Energy Australia	52,109
Hare, Jonathan	10
Health Services Union	1
HERE Technologies	11
Heavy Vehicle Industry Australia	35
Housing Industry Association	78
IKEA	59
Infant Nutrition Council	38
Insulation Australia	41
Joint Accreditation System of Australia and New Zealand (JASANZ)	81
Law Council of Australia	96
Lighting Council Australia	69
Lyons, Mark	3
Master Builders Australia	100
Master Electricians Australia	88,116
Morton, Gordon	107
National Association of Testing Authorities	37
National Automotive Leasing and Salary Packaging Association (NALSPA)	64
National Catholic Education Commission (NCEC)	25
National Electrical and Communications Association (NECA)	71
NSW Education Standards Authority	86
NSW Small Business Commission	18
Office of the Cross Border Commissioners – Joint Submissions NSW, QLD SA, and VIC Jurisdictions	104
Office of the Cross Border Commissioners – South Australia	136
Plumbing Industry Climate Action Centre	17,129
Plastics Industry Pipe Association of Australia	16,117
Plumbing Products Industry Group - PPI Group	50
Queensland College of Teachers	26
Rainwater Harvesting Australia	29
Refrigeration and Air Conditioning Contractors Association	8
Resources Safety and Health Queensland	92,120
Sacks, Gary	123
Safe Work Australia	9
Safe Work NSW	94

Participants	Submission no.
SEEK	32
Settlement Service International Limited	36
Shipping Australia	58
Short Term Accommodation Association Australia (STAAA)	33
Standards Australia	76,147
Sullivan, Anthony	2
Stronger Ground	103
Tafe Directors Australia	22
Teacher Registration Board of the Northern Territory	21
The Crane Industry Council of Australia	139
The Textile Institute Australia - Southern Australian Section	80
Toole, Glenn	66
True Vault Pty Ltd	34
Veolia ANZ	114
Victorian Automotive Chamber of Commerce (VACC)	19
Vinyl Council of Australia Pty Ltd	31
Water Services Association of Australia (WSAA)	48,125
Weld Australia	5
Wong, Jacqueline	110

Table A.2 – Consultations

Participants
Amazon
Attorney General's Department, Regulatory Consumer and Business Services – SA
Australasian Teacher Regulatory Authorities
Australian Building Codes Board
Australian Council of Trade Unions
Australian Design Rules (ADR) Harmonisation Review
Australian Health Practitioner Regulation Agency
Australian Retailers Association
Australian Trade and Investment Commission (Austrade)
Bicycle Industries Australia
Building Commission NSW
Business Council of Australia
Coalition of Peaks
Costco
Cross Border Commissioners – (ACT, QLD, NSW, SA, TAS and VIC)
Department of Climate Change, Energy, Environment and Water (Cth)
Department of Energy, Mines, Industry Regulation and Safety – WA
Department of Finance
Department of Foreign Affairs and Trade
Department of Industry, Science and Resources
Department of Justice – TAS
Department of the Prime Minister and Cabinet – Office of Impact Analysis
Department of the Prime Minister and Cabinet – Workplace Relations and Small Business
Department of the Premier and Cabinet – SA
Department of the Premier and Cabinet – WA
Department of Treasury – ACT
Department of Treasury – NSW
Department of Treasury and Finance – QLD
Department of Treasury and Finance – NT
Department of Treasury and Finance – SA
Department of Treasury and Finance – TAS
Department of Treasury and Finance – VIC
Department of Treasury and Finance – WA
Electrical Regulatory Authorities Council

Participants
Energy Safe Victoria
Environment, Planning and Sustainable Development Directorate – ACT
Federal Chamber of Automotive Industries
Food Standards Australia New Zealand
International Organization for Standardization
Jobs and Skills Australia
Kanevskaia, Olia
Minerals Council of Australia
National Transport Commission
NSW Fair Trading
NSW Food Authority
Office of Industrial Relations – QLD
Office of the Technical Regulator – SA
Organisation for Economic Co-operation and Development (OECD)
Royal Netherlands Standardization Institute (NEN)
Standards Australia
Treasury and Economic Development Directorate – ACT
World Trade Organization

B. Standards

Key points

- **Most Australian Standards incorporated in legislation align with international standards or are bespoke Australian Standards.**
- **Aligning Australian regulation with international and overseas standards can reduce business compliance costs and facilitate competition through interstate and international trade. The potential economic benefit could be in the range of $1.1 billion to $3 billion (0.04% to 0.11% of GDP) per year.**
  - In past Commonwealth impact analyses, the net benefits of alignment ranged from negative $200m to positive $215m per year, with an inflation-adjusted average of $11m per year.
  - We have assumed that legislation can be expanded to allow compliance with international or overseas standards for a quarter of current incorporated Australian Standards not aligned with an international standard or where there is no international counterpart.
  - Applying the $11m average to these standards gives a total benefit of $1.1bn to $1.9bn per year depending on whether a standard incorporated by one state impacts only that state, or a national market.
  - Using Computable General Equilibrium modelling to estimate the downstream impacts of reform increases the potential upper benefit to $3bn per year – although the effects of any individual standard need to be assessed on a case-by-case basis.
- **Australian governments should prioritise reviews of legislative references to standards in five areas:**
  - **Non-alignment with international standards:** Legislation incorporating the 21 current Australian Standards that have an international counterpart but are not equivalent to that standard.
  - **Bespoke Australian standards:** Legislation incorporating the 675 current Australian Standards with no corresponding international standard.
  - **Government-developed requirements:** Legislation that does not incorporate Australian Standards but is not aligned with relevant international or overseas standards.
  - **State and territory inconsistency:** Only 26% of the 893 current incorporated Australian Standards are consistently incorporated by the states, territories and Commonwealth.
  - **Outdated standards:** 659 incorporated Australian Standards are superseded, obsolete or withdrawn.
- **Australian governments should fund free access to standards incorporated in legislation. Free access would promote competition and could improve compliance.**

Voluntary and mandatory standards govern many aspects of everyday life for businesses and people. If you are reading this report on a computer monitor purchased in Australia, your monitor had to meet mandatory energy efficiency standards – including minimum energy performance standards (set out in AS/NZS 5815.2:2013) and testing (according to AS/NZS 5815.1:2012) – and display an Energy Rating Label.[5]

The PC has been asked to provide analysis and modelling to understand the economic impact of 'adopting international and overseas standards in regulatory frameworks, and harmonising regulated standards across Australia, in priority sectors identified by governments'.

B.1 About standards

What are standards and conformity assessments?

A ***standard*** is a published document setting specifications and procedures designed to ensure products, services and systems are safe, reliable and consistently perform as intended (DIIS 2016a, p. 18). Standards are a broad category which includes (OECD 2011, p. 9):

- quality standards that define product characteristics related to safety, performance or efficiency
- information standards that set parameters for types of information to be communicated about a product, such as labelling
- uniformity standards designed to reduce possible product categories, for example by defining minimal size of a given fruit
- professional conduct and certification standards that define criteria for performance of professions, and
- interoperability standards designed to ensure that two or more related products or processes may fit and operate with each other.

Formal standards are generally established by consensus and approved by a recognised body. They are often developed with the input of a variety of stakeholders. In Australia, most voluntary standards are developed by Standards Australia under the Australian Standard® (AS) name or are joint Australian/New Zealand Standards (AS/NZS) developed by a joint committee with members representing both Australian and New Zealand stakeholders. These joint committees are managed by either Standards Australia or Standards New Zealand (Standards Australia 2023a, p. 12).

Conformity assessment judges whether a product, service, process, claim, system or person meets the requirements of a standard (ISO nd).

Together, standards and conformity assessment play a key role in supporting competitive markets by facilitating market exchange, including through (PC 2006b, p. 10):

- reducing *transaction costs* by addressing the information asymmetry between buyers and sellers
- improving the *compatibility* (interoperability) of interconnected goods or services where network effects may be present (e.g. mobile phones)
- reducing costs by delivering *economies of scale* by facilitating mass production of certain related goods (e.g. appliances using batteries in standardised sizes), and
- diffusing *technology and innovation* by enabling all firms to access the technological knowledge contained in a standard.

[5] Greenhouse and Energy Minimum Standards (Computer Monitors) Determination 2014 (Cth). Computer monitors are also regulated under state and territory electrical safety laws and by the Australian Communications and Media Authority.

In some markets, businesses will have sufficient incentives to ensure these outcomes are achieved, and it will be readily apparent to consumers when they are not. In other markets, however, standards help create a common benchmark which enables socially acceptable market outcomes, provided that the incentives of standard-setting and conformity assessment bodies are aligned with social objectives (PC 2006b, p. 12). Overall, standards and conformity assessments can increase trade where standards are aligned across countries or Australian jurisdictions which will generally lead to economic growth and improved consumer welfare.[6]

What are international and overseas standards?

Growing international integration of markets has increasingly led to a shift from domestic standards to standards for the international economy (Büthe and Mattli 2010, p. 440) including global private standards made by businesses and independent not-for-profit organisations (Liu 2009).

An ***international standard*** is developed by an international standard-setting organisation that meets the World Trade Organization's (WTO) six principles: transparency; openness; impartiality and consensus; effectiveness and relevance; coherence; and development (developing countries' participation) (WTO nd).

International standards provide an opportunity for countries, including Australia, to contribute to the development of the standard. For example, Standards Australia is appointed by the Australian Government as the Australian member of the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) (DIIS 2018, p. 6). The Australian Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts represents Australia in the International Telecommunications Union (ITU).

In this report, ***overseas standards*** refer to other standards that apply outside Australia but which are not international standards. These can be produced by a specific region (e.g. the European Union (EU)), another country's standard-setting body (e.g. Japan's Standards Association), private businesses (e.g. the GlobalGAP protocol developed by European supermarket chains) or independent not-for-profit organisations (e.g. Fairtrade International).[7] In contrast to international standards, Australia often does not have the opportunity to participate in the development of overseas standards.

Where international or overseas standards are widely adopted by industry, trade integration can be driven by market practices, rather than government regulation (e.g. CSIRO, sub. 142, p. 5).

What are mandatory standards?

Standards are voluntary. Governments can however mandate standards through legislation.[8] When developing legislation, government can incorporate an existing standard, develop its own requirements, or

[6] The OECD defines the 'standards and quality assurance system' to include 'standardisation, metrology, accreditation, conformity assessment, and market surveillance' (OECD 2025, p. 8). This NCP study focuses on standards and conformity assessment rather than metrology bodies, accreditation of conformity assessment bodies or market surveillance by authorities to ensure compliance.

[7] In addition to 'Australian standards', 'international standards' and 'overseas standards', the Australian Government's consultation on the use and recognition of standards in regulation referred to two other types of voluntary standards: 'regional standards' and 'industry standards' (Australian Government 2025, p. 4). In this report, the PC has included these two other types as 'overseas standards'. The terms used in this report also cover the OECD's two categories of standards: 'public standards' (standards developed by government-recognised actors or in government-recognised forums) and 'private standards' (standards developed outside of systems of formal recognition from governments) (OECD 2025, p. 10).

[8] In this report, 'legislation' refers to Acts of Parliament and the subordinate legislation made under them (also referred to as 'delegated legislation').

task a body, such as Standards Australia, to develop a standard which the government incorporates (OECD 2025, p. 11; PC 2006b, p. 38).[9] The different terms used in this report are set out in figure B.1.

The legal effect of standards incorporated in legislation can vary.[10] For example, legislation can:

- require the use of the standard as the only way to comply with the law
- require compliance with the standard or another method that provides at least an equivalent outcome ('equivalency')
- set performance outcomes to allow flexibility to meet the legally required outcomes, but specify a standard as meeting those requirements to provide certainty ('deemed to comply'), or
- create a rebuttable presumption that if a person conforms to a standard, they have complied with the law ('presumption of conformity').

In contrast to voluntary standards, mandatory standards limit individual choice by only allowing products, services or systems that meet minimum specific requirements.

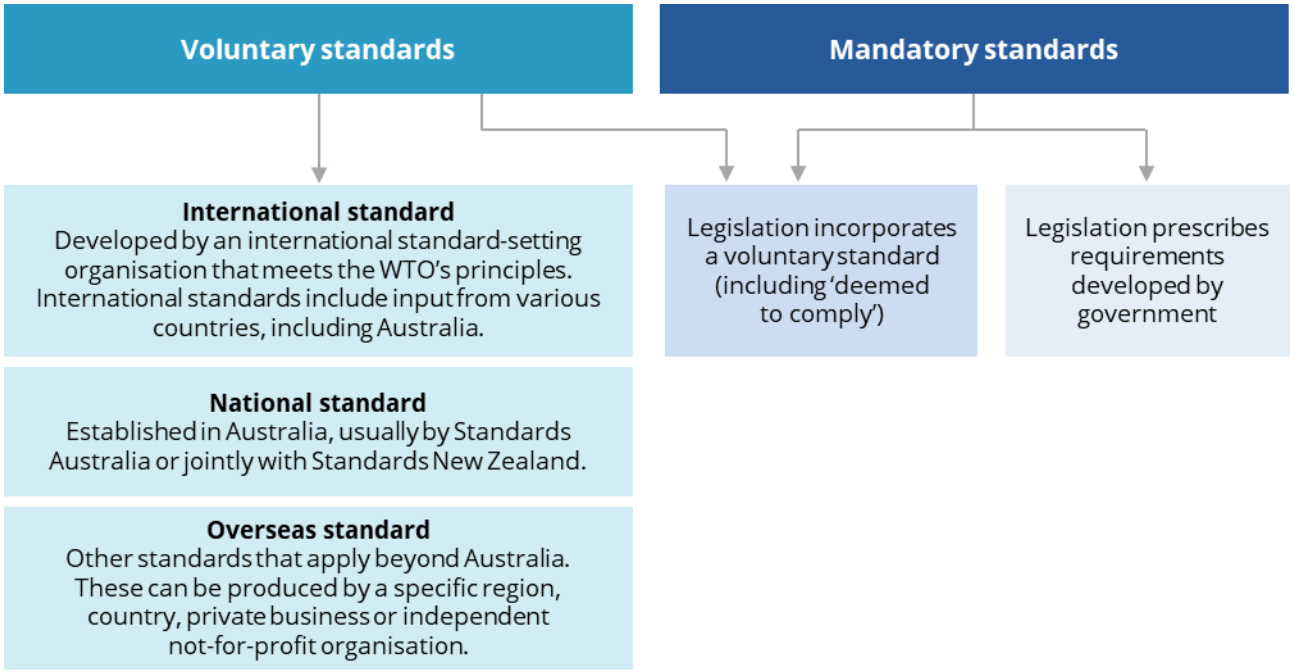
Before mandating a standard, Commonwealth, state and territory policy makers are generally required to demonstrate a public policy problem necessitating intervention, and to examine a range of options, including non-regulatory options such as a voluntary standard, to address the problem.

Standards might also be relevant in other legal contexts. For example, a court may consider that conforming to a standard is relevant to meeting a legal duty (Safe Work Australia nd) or a standard may be incorporated in a procurement process (e.g. Autodesk, sub. 40, p. 2), contract or as a condition of a government permit or other administrative decision. Australia might also be required under international law to comply with an international standard where the Australian Government becomes a signatory to a treaty or international instrument. For example, under the Universal Postal Convention, Australia must comply with standards covering the international exchange of letters and parcels, pricing and delivery (Joint Standing Committee on Treaties 2024, p. 5).

[9] This report uses, interchangeably, the terms 'regulated standards' (from the letter commissioning this study) and 'mandatory standards' (from the draft Competition Reform Guidelines for this NCP reform (Treasury 2025)). Both terms refer to legislation where government has incorporated an international, national or overseas standard or developed its own requirements.
[10] The terms 'incorporated', 'referenced', 'referred to', 'cited', 'applied', 'adopted' and 'mandated' are often used interchangeably to refer to voluntary standards prescribed in legislation. For simplicity, this report generally uses the term 'incorporated standards'.

Figure B.1 – Terms used in this report

Distinction between international, national and overseas standards, and voluntary and mandatory standards



Benefits of standards harmonisation

Harmonisation of standards across countries can expand international trade, particularly for relatively small economies (An and Maskus 2009; Lecraw 1984; Moenius 2004, p. 15; Schmidt and Steingress 2022, p. 13).

Where Australian mandatory standards differ from other countries, businesses face additional costs to:

- **export goods from Australia** – e.g. Australian sunscreen producers have to undertake a different broad-spectrum test to supply another country (attachment B.3; Accord Australasia, sub. 112, pp. 3-6)
- **import goods to Australia** as products need to be modified, and potentially produced on separate production lines or repackaged, and retested for sale in Australia, or businesses may need to undertake duplicative conformity assessments and approval processes – e.g. suppliers having to unbox and label products to comply with Australian requirements for toppling furniture (attachment B.3; IKEA, sub. 59, p. 3)
- **import or export services** – e.g. Australian financial service providers having to change risk-management software to supply services in other countries (PC 2015, p. 146), or
- **operate in multiple jurisdictions** – e.g. global technology service providers may delay or withhold rollouts in Australia due to inconsistent local requirements (Business Council of Australia, sub. 53, p. 9).

As noted by the NSW Small Business Commission, these additional costs can particularly impact Australian small businesses. For sectors integrated into global supply chains or with export potential, the divergence between local and international or overseas standards can limit the ability of small businesses to scale, delay their uptake of new technologies and reduce consumer choice. Small businesses have fewer resources to navigate these additional compliance burdens, which can impact their competitiveness both domestically and internationally (sub. 18, p. 3).

By aligning domestic standards with international or overseas standards, countries lower transaction costs, which in turn improves market accessibility and enables businesses to expand into new geographic areas. In

Australia, this can increase the range of goods and services available, potentially leading to lower prices and improved quality (Menezes 2025, p. 49).

Alignment can also enable innovation, for example through the sharing of knowledge or compatibility standards (Blind 2022). Where the good or service is an intermediate input used by businesses in the production of other goods and services, increased alignment with international or overseas standards can facilitate innovation and productivity through easier adoption of technologies, for example advanced safety technology in heavy vehicles (PC 2020, p. 232).

Barriers to the introduction of new products in Australia can also have a broader impact on public welfare, for example, the impact on people's lives and government health care costs where there is a delay in accessing cancer treatment drugs, or from harmful exhaust emissions through delays in adopting more stringent international standards for vehicle emissions (attachment B.1, table B.11).

There are costs of alignment too

There are situations where alignment can lead to net costs or might not be appropriate. This includes where:

- the international or overseas standard does not address specific Australian risks or objectives – for example, Australia's climate is generally hotter than conditions used to develop safety-related construction and testing requirements for some electrical products in IEC standards (Standards Australia, pers. comm., 11 July 2025), or
- the costs of change are too great – for example, revising Australia's plug and voltage standard or changing the side of the road on which Australians drive (Byres 2017).

Mandating a standard in law may also create barriers to entry or innovation (Menezes 2025, p. 29; OECD 2019, p. 35). For example, the literature highlights the risk of standards harming competition by locking in an incumbent's technology where a patent is included in a standard (Lerner and Tirole 2015). If international standard-setting bodies or conformity assessments are used to inhibit competition, then mandating the international standard (if regulation is necessary) would not be in the public interest (see Standards Australia, sub. 76, p. 12; Textile Institute Australia, sub. 80).

Other concerns raised through consultation with a blanket approach to alignment of mandatory standards include:

- Neglecting the development of bespoke Australian standards means we miss the opportunity to provide the foundation for the subsequent development of international or overseas standards (Australasian Bioplastics Association, sub. 105, p. 1; CSIRO, sub. 142, p. 4; Standards Australia, sub. 76, p. 12 and sub. 147, p. 6 (life jackets)).
- If an overseas standard is adopted, Australian industry and consumers will not have engaged in the development of that standard so it may not be suitable (Standards Australia 2024b).
- Transitioning to international standards could require Australian manufacturers to re-test, reduce local certification services and increase reliance on offshore testing (CSIRO, sub. 142, p. 4).
- Variations in the quality of overseas conformity testing could provide a potential risk (Australian Forest Products Association, sub. 67, p. 2; CSIRO, sub. 62, p. 6; McIntosh (2024)).

Government adjustment assistance may also be needed when removing non-tariff trade barriers significantly impacts less competitive domestic industries (PC 2012, p. 5).

B.2 Australian policy is to align with international standards where possible

Australian Government policy places an onus of proof on policy makers to justify mandatory standards that depart from a relevant international standard.

Policy development guidance

The Australian Government's principle is that 'if a system, service or product has been approved under a trusted International Standard or risk assessment, Australian regulators should not impose any additional requirements unless it can be demonstrated that there is a good reason to do so' (DIIS 2016b, p. 2).

To support good policy making, the Australian Government requires policy proposals to be accompanied by an impact analysis (PMC 2023a).[11] As noted by the Australian Industry Group (sub. 135, p. 2), Standards Australia applies a net benefit test when developing voluntary standards. Policy makers must still complete an impact analysis for 'the development of standards used for regulatory purposes, even if they have been developed by Standards Australia or other third parties' (PMC 2023a, p. 23). This requirement reflects the difference between voluntary and mandatory standards (Menezes 2025, pp. 14, 21).

If a policy option involves the establishment or amendment of a standard in areas where international standards already exist, Commonwealth policy makers are required to document whether (and why) the standard being proposed differs from the international standard.

State and territory governments do not have a consistent approach, with differing guidance on how to adopt international standards – for example: the ACT, Tasmania and WA exempt policies from an impact analysis if they involve the adoption of an international or national standard and an assessment of the benefits and costs has already been made; the NT requires policy makers to document and justify any variation from a national standard; whereas NSW and Victoria have no requirements relating to international or national standards (ACT Government 2024, p. 5; NSW Government 2019; NT Government 2017, p. 25; Tas Government 2016, p. 24; Vic Government 2024, p. 44; WA Government 2023, p. 17).

Regulator-specific frameworks

Governments can use legislative provisions and other tools to either require, or encourage, regulators to seek international alignment. For example, governments can:

- provide direction to a regulator – such as objects clauses, legal requirements and statements of expectations e.g. the objects clause in the *Road Vehicle Standards Act 2018* (Cth) includes Australia's international obligations to harmonise road vehicle standards
- empower regulators to seek international alignment – such as permitting the incorporation in legislation of international or overseas standards 'as in force from time to time' (so that updates to the standard are automatically incorporated in the law[12]), the ability to accept overseas approvals, and the power to exchange information with overseas regulators.

[11] See also the guidance on regulatory impact analysis for Ministers' meetings and national standard-setting bodies (PMC 2023b).

[12] Delegated Commonwealth legislation (legislative instruments) cannot incorporate a voluntary standard 'as in force or existing from time to time' unless a contrary intention appears in the enabling legislation (*Legislation Act 2003* (Cth) s 14). Different approaches are taken across the states and territories (Pearce and Argument 2023, p. 510).

Relationship between the Australian Government and standard-setting bodies

The Australian Department of Industry, Science and Resources (DISR) manages the Australian Government's relationship with the four main Australian standards and conformance bodies: Standards Australia, the National Association of Testing Authorities (NATA), the Joint Accreditation System of Australia and New Zealand, and the National Measurement Institute. The Australian Government has had Memoranda of Understanding (MoUs) in place with Standards Australia and NATA since 1988 (DISR nd). The 2025 MoU with Standards Australia supports international harmonisation, including by providing that Standards Australia will:

- ensure compliance with the WTO *Agreement on Technical Barriers to Trade* (TBT Agreement)
- take into account Australia's undertakings in free trade agreements, and
- use accepted international standards except where there are compelling reasons to depart from them.

International obligations

As a member of the WTO, there are a series of agreements which require Australia to ensure that technical requirements – which involve standards – do not create unnecessary obstacles to trade (DIIS 2016a, p. 6). These commitments are outlined across WTO agreements, including the:

- TBT Agreement
- Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), and
- General Agreement on Trade in Services (GATS).

The TBT Agreement states that technical regulations and conformity assessment procedures shall not be more trade-restrictive than necessary to fulfil a legitimate objective.[13] Where there is a relevant international standard, it must be used as a basis for technical regulation except where it would be an ineffective or inappropriate means to fulfill the legitimate objective. Members are also required to ensure that central government standardising bodies (including Standards Australia) follow the *Code of Good Practice for the Preparation, Adoption and Application of Standards* (Code of Good Practice) (WTO 2025, p. 89).

The SPS Agreement similarly sets obligations around the imposition of regulations that seek to protect human, animal or plant health. SPS measures adopted by members must, like TBT measures, be no more trade restrictive than necessary, but also must be based on an analysis and assessment of objective and accurate scientific data.

The GATS requires measures relating to qualification requirements and procedures, technical standards and licensing requirements to be based on objective and transparent criteria and to be no more burdensome than necessary to ensure the quality of the service. Relevant international standards are to be considered in determining compliance with these obligations.

The WTO agreements also encourage members to participate in standard-setting organisations and adopt the resulting standards, so that voluntary and mandatory standards worldwide become more harmonised.

The obligations apply to all Australian regulation including state and territory legislation.

[13] TPT Agreement Annex 1 includes the following definition of 'technical regulation': 'Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method'.

Policy reviews

There have been government-wide commitments to promote international harmonisation of mandatory standards. In 2006, the PC reported on standard-setting and laboratory accreditation in Australia, including trade facilitation through international standards (PC 2006b, p. 99). The 2014 *Industry Innovation and Competitiveness Agenda* included a review of Australian Government standards and risk assessment processes in each ministerial portfolio to assess whether unique Australian standards or risk assessments were needed (PMC 2014, p. 24).

Australia's national competition reforms have also provided an umbrella through which the Commonwealth, states and territories have undertaken reviews and reform. The 1995 *Competition Principles Agreement* included a commitment by Australian governments to review competition restrictions in legislation (IC 1995). This was followed by the:

- 2006 *National Reform Agenda*, which included regulatory reform to address inconsistencies between domestic and international standards (PC 2006a), and
- 2016 *Intergovernmental Agreement on Competition and Productivity-enhancing Reforms*, which included a commitment to remove unnecessary regulatory barriers to competition. Priority areas included mandatory product and other standards (Appendix A, clause 4(g), see also (Harper 2015, p. 135)).

The PC, in its 2023 Productivity Inquiry, recommended that the Australian Government promote open and resilient trade in goods, including by:

> increasingly accepting product standards adopted in other leading economies as 'deemed to comply', provided that a transparent review could be undertaken in cases where the Australian Government identified a significant safety risk. (PC 2023, p. 25)

Under the *National Competition Policy Federation Funding Agreement – Affordable Housing, Community Services and Other* (29 November 2024), the Commonwealth, states and territories committed to 'lower barriers to the adoption of overseas standards in regulation'. This commitment covered two projects: establishing and applying guidelines for recognising and adopting voluntary standards (including international and overseas voluntary standards) in legislation; and recognising international and overseas standards under the mandatory product safety standards framework in the Australian Consumer Law (ACL).

B.3 Do mandatory standards align with international or overseas standards?

The potential economic impact of this National Competition Policy (NCP) reform depends on the extent to which Australian mandatory standards are currently aligned or not aligned with international or overseas standards. If Commonwealth, state, territory and local government legislation is already fully aligned with relevant international or overseas standards where appropriate, then there are no potential benefits – although there may be benefits from addressing related problems such as delays in updating the legislation to align with revisions, or businesses having to go through duplicative conformity assessments and approval processes.

Alignment of voluntary Australian Standards

The WTO Code of Good Practice requires Standards Australia to ensure that voluntary standards do not create unnecessary obstacles to international trade (para E). Where international standards exist, they must be used as a basis for voluntary standards unless it 'would be ineffective or inappropriate, for instance,

because of an insufficient level of protection or fundamental climatic or geographical factors or fundamental technological problems' (para F).

Standards Australia's process for the development of an Australian Standard requires the relevant technical committee to search for, and review, any international standard (Standards Australia 2023c, p. 6).[14] An Australian Standard is classified as (Standards Australia 2023b, p. 118):

- 'identical' when it is identical in technical content to an international standard
- 'modified' when technical differences (generally minor) exist and are clearly identified – for example, technical modification of an international standard for Australian electrical plugs, and
- 'not equivalent' where the technical content or structure is not equivalent and any changes have not been clearly identified.[15]

If there is no corresponding international standard, the Australian Standard is classified as 'no international standard exists' (although other countries may have mandatory or voluntary standards covering the same subject matter).

As at 10 July 2025, there were 7,519 Australian and Australian/New Zealand standards that were current or pending revision (table B.1). Of these:

- 44% were identical to, or modified adoptions of, international standards
- only a small number (1%) had an international counterpart but were not equivalent to that standard
- over half (55%) had no corresponding international standard, and were bespoke Australian standards.

Table B.1 – Australian Standards[a,b]

Alignment of voluntary Australian Standards (current or pending revision) with international standards

	Number of standards (as at 10 July 2025)
Total stock	**7,519**
Identical to international standard	2,538 (34%)
Modified adoption of international standard	741 (10%)
Identical to, or modified adoption of, international standard	**3,279 (44%)**
Not equivalent to international standard	60
Not based on international standard	18
International standard exists, Australian Standard not equivalent	**78 (1%)**
No international standard exists	**4,162 (55%)**

a. The figure of 7,519 consists of 5,946 Standards and 1,573 other publication types (e.g. Handbook or Technical Specification). These other publication types are sometimes incorporated in legislation. For simplicity, this report refers to these publication types as 'Australian Standards'. **b.** Includes joint standards adopted by Standards Australia e.g. Australian/New Zealand Standards (AS/NZS) or Australian/International Organization for Standardization standards (AS/ISO). This report refers to these joint publications as 'Australian Standards'.

Source: PC estimates based on Standards Australia (pers. comm., 14 July 2025).

[14] This process can also cover overseas standards which, in the absence of an international standard, are widely used internationally (Standards Australia 2023c, p. 4).

[15] Standards Australia's data also uses the term 'not based on international standard'.

The percentage of Australian Standards that were identical to, or modified adoptions of, international standards (44%) is broadly similar to other WTO members including the EU,[16] New Zealand[17] and Japan,[18] although it is significantly lower than the Republic of Korea.[19] The percentage of Australian Standards in alignment with international standards has increased over time – in financial year 2023-24 over 70% of Standards Australia's new publications were identical to the international standard.[20]

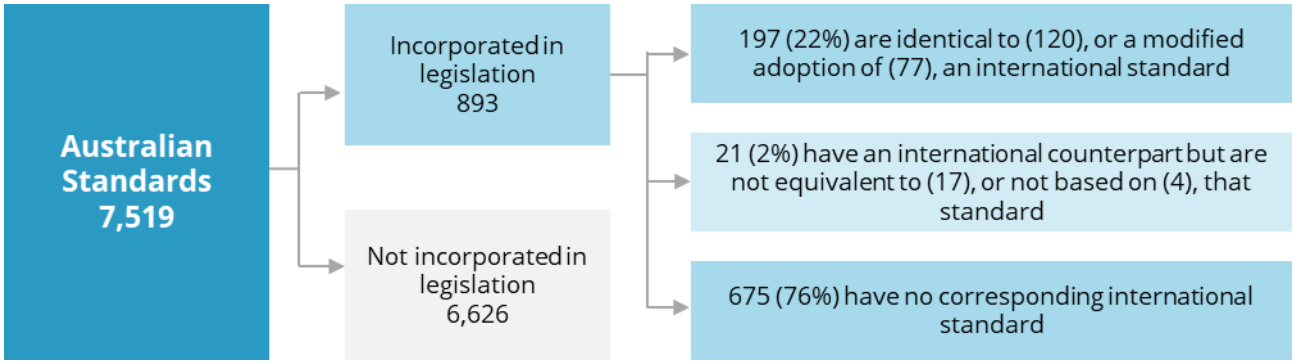
Alignment of mandated Australian Standards

Of the 7,519 Australian Standards, an estimated 893 (12%) were incorporated in legislation in at least one jurisdiction (figure B.2). Of these 893 Australian Standards:

- 197 (22%) were identical to, or modified adoptions of, international standards
- only 21 (2%) had an international counterpart but were not equivalent to that standard
- the majority (675 or 76%) had no corresponding international standard.

Figure B.2 – Legislation incorporating Australian Standards[21]

Commonwealth, state and territory legislation incorporating Australian Standards (current or pending revision) as at 10 July 2025



Source: PC estimates based on Standards Australia (pers. comm., 14 July 2025).

[16] In 2022, the European Committee for Standardization (CEN) and European Committee for Electrotechnical Standardization (CENELEC) catalogues contained 24,169 European standards, of which almost half (45% or 11,026) were identical to international standards (WTO 2023a, p. 105).
[17] In 2021, about half of standards in New Zealand's catalogue were equivalent to international standards (WTO 2022, p. 57).
[18] As at 31 March 2022, there were 10,918 Japanese Industrial Standards (JISs). The number corresponding to international standards was 6,341 (58%). The percentage of those JISs that were harmonised with international standards was 97% (WTO 2023b, p. 62).
[19] As at 2020, 20,916 Korean Industrial Standards (KSs) had been adopted. Roughly 3% of KSs had been established without any reference to international standards (i.e. there were very few 'Korea-specific' standards) (WTO 2021, p. 95).
[20] In 2023-24, Standards Australia issued 453 publications (Australian Standards, Amendments and Other), of which 331 were identical international adoptions (Standards Australia 2024, p. 4). Standards Australia also advised that, in practice, alignment with international standards is even higher as technical committees sometimes prefer to use international standards such as ISO standards without adopting these as Australian Standards (pers. comm., 11 July 2025).
[21] Standards Australia's data does not capture all references to Australian Standards in Commonwealth, state and territory legislation and should be treated as indicative rather than exhaustive. Standards Australia manually updates its list of legislation to cover new Australian Standards being published or revised, and may not capture where legislation has been revised to incorporate or no longer incorporate an Australian Standard. The difficulty in identifying where legislation incorporates an Australian Standard is also due to Australian governments using inconsistent methods to cite Australian Standards, and inconsistent approaches to making regulatory instruments available in a searchable electronic formal in a central database (Standards Australia, sub. 147, p. 7).

In line with Australian Government policy, where there is an international counterpart, most current Australian Standards incorporated in legislation are aligned with the international standard.

However, there appears to be a large number of Australian Standards incorporated in legislation for which there are no international standards – an estimated 675 standards. In contrast to all 7,519 Australian Standards (where 55% have no international counterpart), Australian legislation disproportionally incorporates bespoke Australian Standards (76% of incorporated Australian Standards have no international counterpart).

If this Australian regulation is necessary, it may be possible to reduce trade barriers by also allowing compliance, in the legislation, with appropriate overseas standards of specific jurisdictions. For example, while there is no international standard for bicycle helmets, there are widely used EU and United States (US) standards. The Australian Competition and Consumer Commission (ACCC) estimated that allowing compliance with the EU and US standards, in addition to the Australian Standard, could save businesses $14 million per year (attachment B.3).

Finding 1
Australian Standards in legislation broadly align with international standards

Consistent with Australian Government policy, Australian Standards incorporated in legislation largely align with corresponding international standards when available. Of the estimated 893 Australian Standards (current or pending revision) in Commonwealth, state or territory legislation, 197 (22%) are identical to, or modified adoptions of, international standards. Only 21 (2%) have an international counterpart but are not equivalent to that standard. A disproportionate number (675 or 76%) are bespoke Australian Standards with no corresponding international standard. Where such regulation is necessary, allowing compliance, in the legislation, with appropriate overseas standards can reduce trade barriers.

B.4 The potential net benefits of greater harmonisation

To model this reform, the first step is to map the number of mandatory standards not aligned with international or overseas standards, and the second is to estimate the economic impact of greater alignment.

While review and alignment of standards is a worthwhile reform, it is difficult to make an overall assessment of the likely effect. Standards reform can result in both benefits and costs, and each mandatory standard should be assessed individually.

For example, greater alignment may bring net benefits to the community through reduced business costs associated with importing, exporting or operating across multiple jurisdictions or through broader societal gains, such as reductions in deaths, injuries and illnesses. In other cases, adopting international or overseas standards may result in a net cost – such as when a standard fails to address specific Australian risks or objectives, or when the costs of implementing change outweigh the potential benefits.

There can also be flow-on effects that are difficult to quantity. For example, lower business costs can in turn lead to product diversity (i.e. a greater range of goods and services being available in Australia). Flow-on benefits can include:

- consumer welfare gains: consumers benefit from greater product choice and, through competition, lower prices
- productivity gains: Australian businesses benefit from access to new technology

- increased exports: Australian exporters are more competitive due to cheaper production inputs
- public welfare gains: for example, from Australians accessing new or cheaper medical devices.

Flow-on impacts can also be negative – for example, lower prices can lead to greater consumption of imported products that are less safe than products that meet Australian Standards (e.g. Britax Childcare, sub. 111, p. 2 in relation to the Australian Standard for vehicle child restraints).

This section estimates the net benefits of greater harmonisation by using:

- past Commonwealth impact analyses – these often include broader public welfare impacts, but rarely the flow-on effects to the Australian economy, and
- Computable General Equilibrium (CGE) modelling to estimate the flow-on effects from lower business costs.

Using past impact analyses to estimate potential net benefits

Past impact analyses provide an indicator of the potential economic impact that harmonisation could have across the broad range of mandatory standards – from cement composition to clothes labelling – covered by this NCP reform.

The Commonwealth Office of Impact Analysis database includes 18 impact analyses from 2012 to 2025 that considered alignment of an Australian mandatory standard with international or overseas standards – for example, aligning requirements for transport of dangerous goods, energy efficient televisions and vehicle seatbelts (attachment B.1, table B.11).

The sample shows that the costs and benefits of harmonisation require a case-by-case assessment. In the sample, estimates of net benefits range from negative $200 million to positive $215 million per year.

On average, the assessments found a net benefit of $20 million per year. If three outlying estimates are excluded, the average net benefit of the remaining 15 impact analyses is $11 million per year when adjusted for inflation (attachment B.1, table B.11). Of the $11m average net benefit per year:

- 30% is from lower business costs, and
- 70% is from other benefits e.g. lower electricity costs for consumers or health benefits from less road trauma, lower pollution or lower skin cancer rates.

As set above, of the estimated 893 current Australian Standards incorporated in Commonwealth, state or territory legislation:

- 21 have an international counterpart and are not equivalent to that international standard
- 675 have no corresponding international standard.

Without individually reviewing each regulation and standard, it is not possible to say with certainty what percentage of the legislation incorporating these 696 (21 + 675) Australian Standards is amenable to greater harmonisation. A common approach, where there is uncertainty, is to use the midpoint. However, that may be an overestimate – recent sector-specific reviews, while identifying the need for reform, have not found extensive misalignment with international or overseas standards (e.g. House of Representatives 2021, p. 88; Matthews et al. 2021, p. 5; Nous Group 2024, p. 52). The National Electrical Safety Taskforce also found that approximately 85% of standards for household electrical goods reference or appear to reference international standards (WA Department of Energy, Mines, Industry Regulation and Safety, sub. 47, p. 2).

To estimate the impact of this NCP reform, we assume that legislation can be expanded to allow compliance with international or overseas standards for one quarter (174) of these 696 Australian Standards. Some

legislation may in fact already allow compliance with other standards, and so the actual proportion of legislation that could benefit from harmonisation may be significantly lower – or higher – than a quarter.

Applying the adjusted impact analyses average of $11 million per year to these 174 standards suggests a potential net benefit of $1.9 billion per year (174 multiplied by $11m per year).

This is based on Commonwealth impact analyses considering options for economy-wide regulation, but states and territories take an inconsistent approach to the incorporation of Australian Standards in legislation (section B.5). Of the relevant 696 Australian Standards:

- 47% (328) apply in all jurisdictions – 148 are incorporated only in Commonwealth legislation; 1 is incorporated by all states and territories but not the Commonwealth; and 179 are incorporated by the Commonwealth and at least one state or territory
- the remaining 53% (368) are incorporated by one to seven states and territories.

To make things more complicated, there are an estimated 2,340 references in legislation to Australian Standards – some laws refer to multiple standards, and some standards are referred to in multiple laws.

In some cases, a mandatory standard imposed by one jurisdiction can impact national supply (as is the case for bicycle helmets, attachment B.3). In other cases, reform will benefit only the state or territory with the mandatory standard. Adjusting the benefit for the jurisdictions incorporating the relevant 696 Australian Standards suggests:

- a lower bound net benefit of $1.1 billion per year assuming alignment only benefits the jurisdictions with the mandatory standard, and
- an upper bound of $1.9 billion per year assuming alignment benefits a national market.

Table B.2 – NCP reform net benefit estimate

Potential net benefit from expanding legislation incorporating current Australian Standards to allow compliance with international or overseas standards

	Australian Standards	Lower estimate (jurisdiction)	Upper estimate (national)
Australian Standards (current or pending revision) incorporated in legislation (10/7/25)	893		
Not equivalent to an existing international counterpart			
21 x 25% = 5	5	$27m p.a.	$55m p.a.
No international counterpart			
675 x 25% = 169	169	$1,097m p.a.	$1,859m p.a.
Total estimated net benefit	174	**$1.1bn p.a.**	**$1.9bn p.a.**

Source: PC estimates.

The wide range of estimates from the impact analyses highlight the need for a case-by-case assessment. While the estimates in table B.2 provide an indication of the overall benefit, the fact that there are a few outlying impact analyses with high estimated net benefits suggests that the benefits from this NCP reform may come from a small sub-set of mandatory standards being aligned. Reviews will be needed to identify those standards.

The benefits will also depend on the scope of the reform which could range from removing a mandatory standard in a jurisdiction, to allowing compliance with an overseas standard, to alignment across Australian jurisdictions. For example, reform could range from:

- a specific legislative instrument e.g. Australia New Zealand Food Standards Code – Standard 1.6.1 – Microbiological limits in food
- a code covering many standards e.g. Australia New Zealand Food Standards Code
- a regulatory regime and changes needed to enable international or overseas alignment e.g. Food Standards Australia New Zealand's (FSANZ) functions and powers under the *Food Standards Australia New Zealand Act 1991* (Cth), or
- the interaction of multiple regulatory regimes e.g. the intersection between FSANZ's legislation and state and territory food business laws.

Using CGE modelling to estimate potential net benefits

The direct impacts of standards reform will produce economy-wide (downstream) effects which we estimate with CGE modelling (attachment B.2).

One of the main ways harmonisation can impact the broader economy is through promoting competition by lowering trade barriers. Unique Australian mandatory standards can add costs for overseas firms to export to Australia by requiring these firms to prove compliance with the Australian standards – even if their products already comply with relevant international or overseas standards. They may also need to modify products to comply with the Australian standards. The unique national standards act as a non-tariff barrier to importing goods (Schmidt and Steingress 2022). Higher business costs will increase the cost of imports. If the additional costs are sufficiently high, Australian standards may prevent trade from occurring and potentially reduce the range of products available in Australia. The effects are to reduce competition in domestic markets. Allowing compliance with other countries' standards would eliminate this barrier.

Misalignment of standards, whether between Australian mandatory standards and international or overseas standards or across Australia, can similarly impose additional compliance costs on Australian producers. For example, it can impact:

- Australian exporters – as they must comply with a different standard in overseas markets
- the interstate supply of goods and services – as the Australian supplier must comply with another state or territory's standard
- Australian businesses operating in multiple jurisdictions – as they must adapt business processes to each jurisdiction.

Even Australian firms operating solely within a single state or territory can benefit from standards harmonisation – for instance, by enabling innovations previously prevented under local standards, or by facilitating access to workers and production inputs from other jurisdictions.

The empirical effects of standards harmonisation

Various studies have estimated the magnitude of the effects of standards harmonisation empirically. Ideally, these empirical analyses would report the effects of standards harmonisation on fundamental economic outcomes (such as the price or quantity of the relevant good) that could be used to inform the size of a shock to the CGE model.

The literature tends to estimate the effects of voluntary standards on the *value* of trade (the sum of all prices multiplied by their respective quantities). These estimates effectively represent the *outcome* of more fundamental drivers. Nevertheless, they may be indicative of the general magnitude of such effects.

Empirical studies that aim to quantify the trade effects of harmonising standards tend to find that harmonising standards (relative to having a national standard) promotes trade, though the magnitude of these effects vary[22] (table B.3). For example, Portugal-Perez et al. (2010) found a relatively large effect – for two of the three categories of electronics investigated, adopting international standards increased the total value of imports by over 1%. Other studies have found negligible (or even negative) effects – Temple and Urga (1997) found little difference between the adoption of national or international standards.

Table B.3 – Estimated effects of harmonising standards on trade

Economic literature modelling the impact of standards harmonisation on trade flows, sorted descending

	Countries	Scope of estimated effect	Result
Portugal-Perez et al. (2010)	EU countries importing from rest of world	The effect of a 1% increase in the proportion of standards harmonised of each of 3 categories of electronics on the total imported value of that category	+1.6%, +1.1%, +0.3%
Schmidt and Steingress (2022)	Trade between various countries	Effect of harmonising standards of a particular product on that product's trade flows (the total value of both imports and exports)	+0.59%
Blind and Jungmittag (2005b)	German trade with the United Kingdom (UK)	Using 2 different model specifications, the effect of one additional international standard (relative to the counterfactual of that standard being a national one) within a broad industry group on the total value imports of that industry	+0.52% to -0.02%
Blind and Jungmittag (2005a)	Germany's trade to and from France	The effect of an additional 1% of standards being international standards (relative to the counterfactual of these standards being national ones) within a broad industry group on the total value of imports to Germany from France of that industry	+0.36%
Shepherd (2007)	EU countries adopting ISO standards	Effect of a 10 percentage point increase in the proportion of EU standards that were harmonised in the categories of textiles, clothing and footwear on the variety of imports	+0.2%
Moenius (2004)	Bilateral trade – various countries	Depending on the type of controls used, the effect of harmonising 1% of standards within a broad industry of products on the total value of imports of that industry	+0.20% to -0.11%
Swann et al. (1996)	UK trade with the rest of the world	Using 2 different model specifications, the effect of one additional international standard (relative to the counterfactual of that standard being a national one) within a broad industry group on the total value of imports of that industry	+0.20% to -0.31%
Temple and Urga (1997)	UK trade with the rest of the world	Using 4 different model specifications, the effect of one additional international standard (relative to the counterfactual	+0.08% to -0.12%

[22] The numbers reported in these studies are not necessarily comparable with one another due to differences in the data used and the products and standards involved. For example, Schmidt and Steingress (2022) investigated the effect of harmonising the standard of a *particular product*, and found that this increased the value of trade flows of that product by 0.59%. Studies such as Blind and Jungmittag (2005a) investigate the effect of harmonising standards within a *broad industry of products* (such as mineral fuels), and found that a 1% harmonisation of standards led to a 0.36% increase in imports within that industry. These values, while informative, are not measuring the same underlying phenomena.

Countries	Scope of estimated effect	Result
	of that standard being a national one) within a broad industry group on the total value of imports of that industry	

Modelling approach

To estimate the potential long-run economy-wide effects of standards reform using the PC National CGE model, we have:

- Used the estimated $1.9bn per year in net benefits (assuming reform by a state or territory impacts a national market) and assumed 30% flows through to businesses in the form of lower costs, based on the review of impact analyses (table B.2).[23]
- Assumed these lower business costs impact the 3 sectors that have 90% of the 675 incorporated current Australian Standards with no international counterpart: manufacturing; professional, scientific and technical services; and construction (table B.6).
- Modelled an implied reduction in the:
  - cost of imports as a reduction in the price of imports of these products, and
  - cost of domestic production as an improvement in the use of all inputs in production (i.e. as an improvement in total factor productivity (TFP) in each sector).

Attachment B.2 sets out the CGE modelling results for 3 alternative scenarios in which the annual reduction in business costs results in:

- cheaper imports
- cheaper imports *and* lower costs for Australian producers (a combination of scenarios 1 and 3)
- lower costs for Australian producers.

In summary, scenario 3 (where alignment with an international or overseas standard reduces business costs for Australian producers) produces an estimated benefit of $3 billion per year:

- business costs are reduced by $0.6bn per year (30% of $1.9bn per year) (assuming national markets)
- the gain in Gross Domestic Product (GDP) from these reduced business costs is $1.7 bn per year (assuming reform benefits only Australian producers)
- including other community (non-business) benefits of $1.3 bn per year (70% of $1.9 bn per year) increases this to $3 bn per year (0.11% of GDP)
- the annual reduction in the consumer price index (CPI) would be 0.03%.

This increase to $3 billion per year is primarily because the resources that would otherwise have been devoted by Australian producers to compliance can be used by other industries for other activities (in particular, the freed-up labour and capital). Access to these freed-up resources means that the Australian economy can produce more goods and services. This underpins the increase in GDP arising from the increase in TFP.

In scenario 1 (where alignment lowers import prices), the overall economic impact matches the direct annual effect of $1.9 billion per year:

- as for scenario 3, business costs are reduced by $0.6bn per year (30% of $1.9bn per year) (assuming national markets)

[23] These values for 2024 were converted to 2018-19 dollars to calculate the shocks applied to PC National. The percentage increase in GDP from the model was applied to GDP in 2023-24 to derive the economy-wide impacts of the reduction in business costs.

- the gain in GDP from these reduced business costs remains at around $0.6bn per year (assuming reform benefits only imports)
- including other community (non-business) benefits of $1.3bn per year (70% of $1.9bn per year) increases this to $1.9bn per year.

This is primarily because manufactured goods account for most Australian imports for the 3 sectors modelled and they generally compete with local production. Reform that lowers import prices benefits consumers (households and businesses) of these goods (increasing real gross national absorption (GNA) and real household consumption), which also benefits Australian exports. However, increased consumption of imports comes at the expense of local production that competes with these imports. The modelling reflects the economy-wide effects of these various factors.

This means that, assuming a national market, the economy-wide benefits range from $1.9 billion per year (where reform only benefits imports) to $3 billion per year (where reform only benefits Australian producers).

If reform only benefits the jurisdictions with the mandatory standards, the economy-wide effects of reform are simply 57% ($1.1bn per year divided by $1.9bn per year) of those that would occur if the reforms benefited national markets.

This produces, for this NCP reform, a:

- lower bound estimate of $1.1 billion per year (0.04% of GDP) – standards reform only benefits the jurisdictions with the mandatory standard, and the reduction in business costs only benefits importers
- upper bound estimate of $3 billion per year (0.11% of GDP) – standards reform benefits national markets, and the reduction in business costs only benefits Australian producers (table B.4).

Table B.4 – Economy-wide impacts of standards reform

Using CGE modelling to estimate potential net benefits

	Economy-wide impact
Reform benefits	$bn p.a.
National markets	1.9 to 3
Jurisdictions with the mandatory standards[a]	1.1 to 1.7
Impact range for NCP reform	1.1 to 3

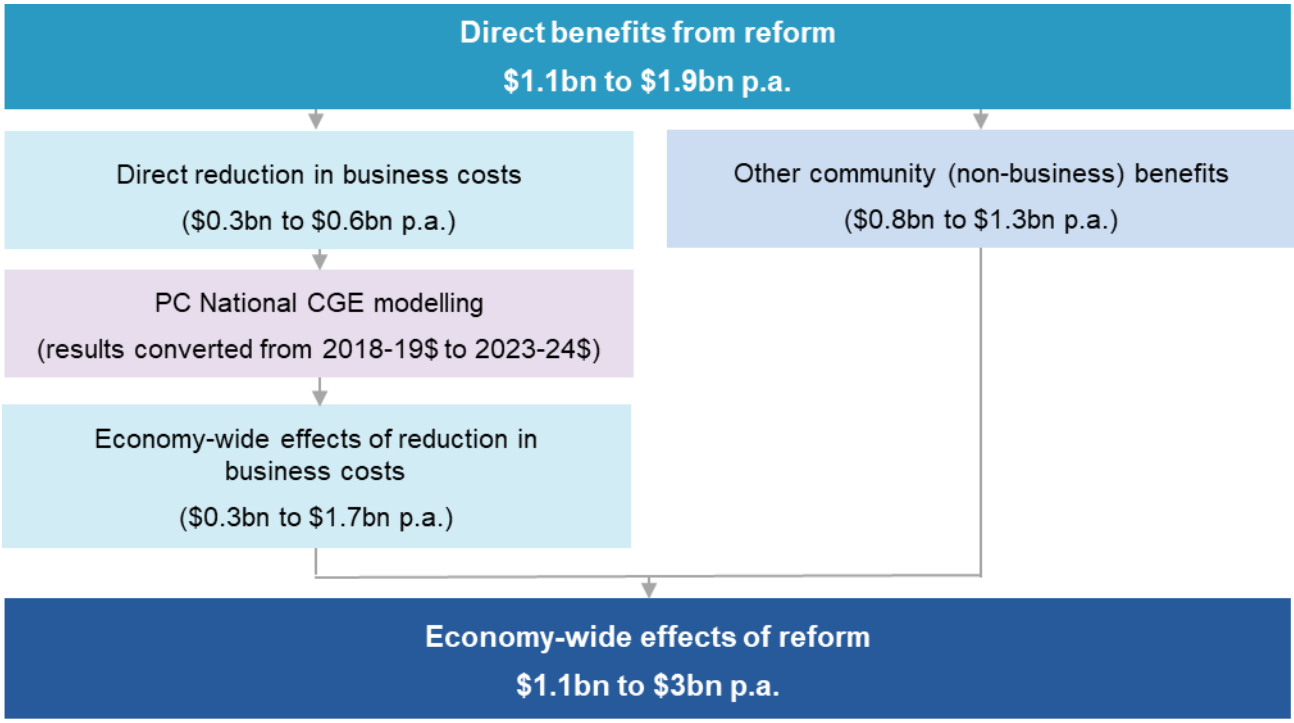
a. Estimated as 57% of the economy-wide impact where reform benefits national markets.

Source: PC estimates.

Figure B.3 summarises this approach to estimating the economy-wide impacts of aligning Australian mandatory standards with international and overseas standards.

Figure B.3 – Estimating the economy-wide effects of aligning Australian mandatory standards

Using CGE modelling to estimate potential net benefits



Source: PC estimates.

Table B.5 apportions the estimated net benefit range of $1.1 billion to $3 billion per year across states and territories on the basis of the economic size of each jurisdiction.

Table B.5 – NCP reform net benefit range by state and territory[a]

Potential net benefit from expanding legislation incorporating current Australian Standards to allow compliance with international or overseas standards

	Lower estimate	Upper estimate
	$million p.a.	$million p.a.
NSW	340	916
Vic	251	675
Qld	223	599
WA	193	521
SA	61	165
ACT	23	62
Tas	18	47
NT	15	40
Total	**1,124**	**3,026**

a. Apportionment to states and territories is based on 2023-24 Gross State Product (ABS 2024, tbl. 1).

Source: PC estimates.

The CGE model may also underestimate benefits to consumers. Adopting international or overseas standards can lead to the introduction of new and innovative goods previously unavailable to Australian consumers. Shepherd (2007) estimated that a 10 percentage point increase in the proportion of EU standards that were harmonised is associated with a 0.2 percent increase in the variety of imports received by EU countries. In these instances, the benefits to consumer welfare may be understated – as the CGE model implicitly assumes the range of goods remains unchanged (Broda and Weinstein 2006; Romer 1994).

It is important to note that, even if the 3 sectors used for this CGE modelling could benefit from greater alignment with international or overseas standards, identifying the relevant legislation needs to be done on a case-by-case basis by technical experts. Without knowing the specific legislation that could benefit from greater harmonisation, it is not possible to know the impact on business costs for importers and domestic producers.

Due to the sheer volume and difference in standards, it is better not to take a piecemeal approach to standards alignment. Instead, our findings suggest that the best approach is to identify a sector, technology, or area, and review each standard for its likely economy-wide impact – the CGE modelling suggests that the biggest economy-wide impact will be where the standards reform reduces compliance costs for Australian producers. There will be a few standards for which alignment could bring hundreds of millions of dollars, and many standards for which alignment may be worth very little – finding the few that provide economic benefits is the challenge.

Finding 2
Harmonising Australian mandatory standards with international or overseas standards could bring significant economic benefits

The potential net benefit could range from $1.1 billion per year (if reform benefits only importers in the states and territories where the standard is legislated) to $3 billion per year (if reform by one state or territory benefits all relevant Australian producers in a national market) or approximately 0.04% to 0.11% of GDP.

This assumes that legislation can be expanded to allow compliance with international or overseas standards for a quarter of the estimated 696 current incorporated Australian Standards not aligned with international standards. However, mandatory standards should be assessed individually. Most of the benefits from standards reform under NCP would likely be delivered from alignment in just a few high value areas.

B.5 Priority areas for review

This section identifies five priority areas for review of Australian regulation. These areas cover legislation:

- incorporating the 21 current Australian Standards that have an international counterpart but are not equivalent to that standard
- incorporating the 675 current Australian Standards with no corresponding international standard
- that does not incorporate an Australian Standard but creates a trade barrier through misalignment with international or overseas standards
- where there is inconsistency across Australian jurisdictions, and
- incorporating out-of-date versions of standards.

Standards not aligned with an existing international standard

Of the 893 current Australian Standards incorporated in legislation, 21 have an international counterpart but are not equivalent to that international standard. Standards Australia advised that these generally fall into two categories (sub. 147, pp. 6-7):

- the international standard cannot be adopted without creating material risks or requiring costly changes to infrastructure, or
- the timing of the Australian and international standards was mismatched or overlapped – for example, the AS 4758 series (revised in 2022) relating to life jackets (incorporated by Commonwealth, state and territory marine safety laws) is not equivalent to the ISO 12402 series (revised in 2020). ISO is commencing a review in November 2025 using the Australian series as base documents which will likely enable Australia to transition to the ISO series once the review is complete.

Policy makers should still review the legislation incorporating these 21 standards, with a view to allowing compliance with international or overseas standards where appropriate. As set out in attachment B.3, in relation to sunscreen products, there may be more than 21 standards in this category.

Standards with no international counterparts

Of the 893 current Australian Standards incorporated in legislation, 675 have no international counterpart. Of these 675 standards, 605 (90%) are in just three sectors: manufacturing; professional, scientific and technical services; and construction (table B.6).

Table B.6 – Australian Standards in legislation by industry

Current Australian Standards in Commonwealth, state and territory legislation, categorised by Australian and New Zealand Standard Industrial Classification (ANZSIC) Code (as at 10 July 2025)

	Australian Standards (current and pending revision) incorporated in legislation					
ANZSIC classification	Identical	Modified	No international standard exists	Not based on international standard	Not equivalent	Total
Manufacturing	48	44	248	3	9	**352**
Professional, Scientific and Technical Services	54	18	219	0	5	**296**
Construction	6	7	138	1	2	**154**
Transport, Postal and Warehousing	0	0	26	0	0	**26**
Electricity and Gas	1	6	17	0	1	**25**
Water and Waste Services	2	0	10	0	0	**12**
Education and Training	2	0	4	0	0	**6**
Health Care and Social Assistance	1	0	5	0	0	**6**
Agriculture, Forestry and Fishing	0	2	1	0	0	**3**
Information Media and Telecommunications	2	0	1	0	0	**3**
Public Administration and Safety	1	0	2	0	0	**3**

	Australian Standards (current and pending revision) incorporated in legislation					
ANZSIC classification	Identical	Modified	No international standard exists	Not based on international standard	Not equivalent	Total
Retail Trade	1	0	2	0	0	**3**
Arts and Recreation Services	0	0	2	0	0	**2**
Mining	2	0	0	0	0	**2**
Total	**120**	**77**	**675**	**4**	**17**	**893**

Source: PC estimates based on Standards Australia (pers. comm., 14 July 2025).

If this bespoke Australian regulation is necessary, it may be possible to reduce trade barriers by also allowing compliance, in the legislation, with appropriate overseas standards of specific jurisdictions.

Submissions to this study included examples of legislation where there could be greater recognition of overseas standards, including the construction sector (attachment B.3).

Alignment with overseas standards is particularly relevant to new areas of regulation, such as artificial intelligence. As noted by Amazon, global standards in artificial intelligence are nascent and there is a risk of ending up with a patchwork of local, conflicting regulations (sub. 99, p. 5). The Business Council of Australia referred to the risks of Australia setting regulatory precedents ahead of global alignment, including before an international standard on age assurance is finalised (sub. 53, p. 7). Data and communication standards in turn impact innovation and productivity in other sectors (e.g. Australian Logistics Council, sub. 28, p. 2; Engineers Australia, sub. 74, p. 6; and HERE Technologies, sub. 11, p. 3).

Packaging and waste reduction are examples of regulatory areas where international standards are still emerging but inconsistency with overseas standards and across states and territories can impose compliance costs and harm competition and environmental objectives (attachment B.3).

Legislation not incorporating Australian Standards can also create trade barriers

Rather than incorporate a voluntary standard, legislation can prescribe requirements developed by government. Such legislation can create a barrier to trade through misalignment with international or overseas standards.

In principle, such legislation should be captured in Australia's notifications to the WTO under the TBT and SPS Agreements. Under these Agreements, members are required to notify other WTO members of proposed technical and SPS regulations where no international standard exists or the regulation is not the same as the international standard, and if the regulation may have a significant effect on trade.

From 1995 to 2024, Australia made 846 regular notifications to the WTO, all of which related to Commonwealth legislation even though the WTO agreements also apply to state and territory regulation.

Food safety standards and biosecurity, which together account for over 75% of these notifications, are examples of areas of regulation that usually do not incorporate an Australian Standard but where there may be value in reviewing alignment with international or overseas standards.

Consumer goods, road vehicles, therapeutic goods, energy and water efficiency, industrial chemicals and communications together accounted for 19% of the notifications.

Inconsistencies across states and territories

Mandatory standards should, in general, be consistent across Australian jurisdictions. When mandatory standards are not aligned across states and territories, it impacts competition by acting as a barrier to interstate and international trade – which governments acknowledged in the *Intergovernmental Agreement on National Competition Policy* (Federal Financial Relations 2024, p. 27).

There may be good policy reasons why some mandatory standards are not relevant to all jurisdictions – for example, the National Construction Code (NCC) includes specific performance requirements that are only applicable in alpine areas. However, inconsistency across Australian jurisdictions was highlighted in submissions as the major issue facing business.

Many participants said that the major barrier facing Australian business when it comes to standards is not alignment with international standards, but interstate alignment. For example, the Carpet Institute of Australia said that the 'greatest inefficiencies in the flooring sector stem from inconsistent standards and regulations across Australian states and territories' and urged the PC to prioritise 'national alignment of regulated standards as the first step in reform' (sub. 6, p. 2). Standards Australia said (sub. 76, p. 7):

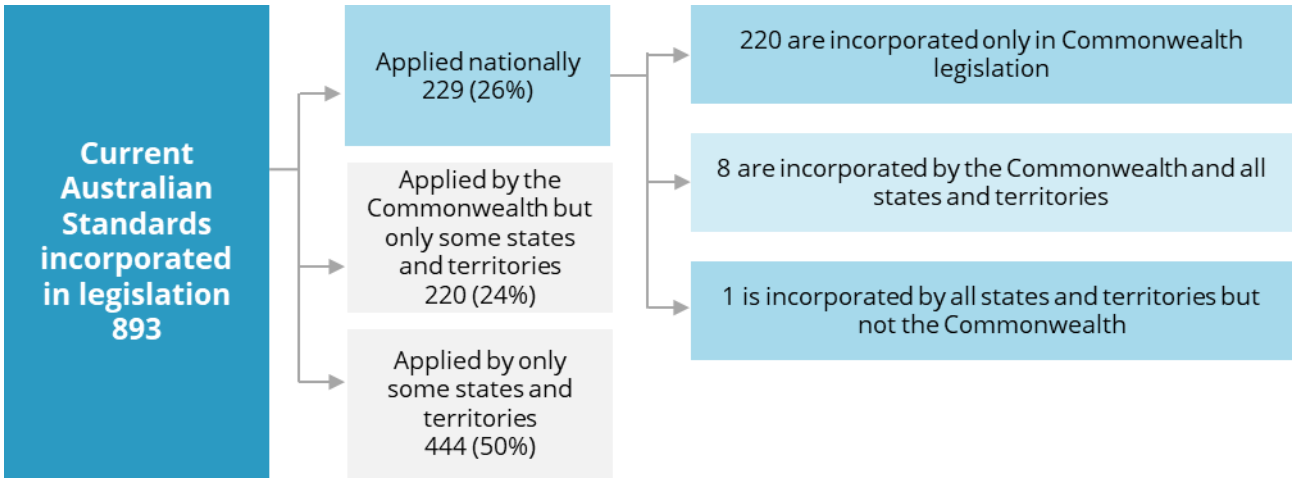
> Regulatory fragmentation costs Australian businesses billions of dollars each year … Domestic harmonisation of regulated standards would address unnecessary costs by simplifying regulatory obligation requirements, by simplifying and facilitating market entry across the national market and through reducing inefficiencies in regulatory processes.

Many Australian Standards are not consistently implemented across jurisdictions (figure B.4). Out of the 893 unique Australian Standards incorporated in legislation:

- only 26% (229) are applied on a national basis – 220 are incorporated only in Commonwealth legislation, 8 are incorporated by the Commonwealth and all states and territories, and 1 is incorporated by all states and territories but not the Commonwealth
- 24% (220) are applied by the Commonwealth but only by some (between 1 and 7) states or territories
- 50% (444) are applied by only some (between 1 and 7) states and territories.

Figure B.4 – Australian Standards incorporated by jurisdictions

Australian Standards (current or pending revision) incorporated in Commonwealth, state and territory legislation as at 10 July 2025



Source: PC estimates based on Standards Australia (pers. comm., 14 July 2025).

Even where regulation is aligned with international standards, inconsistent conformance assessment and post-market controls across state and territory legislation can lead to unnecessary compliance costs and reduce competition – an example is Australia's household electrical safety regulatory framework (attachment B.3).

Stakeholders suggested policy options to support harmonisation of mandatory standards across Australia ranging from a single law (e.g. the ACL and *Corporations Act 2001* (Cth)) to model codes that are applied by each state and territory (e.g. the Food Standards Code and NCC). Examples from other federated countries include Canada's *One Canadian Economy Act* SC 2025, c 2 which recognises provincial standards for goods and services as having met the federal standard.[24] In parallel, Canadian federal, principal and territorial ministers agreed to other reforms to facilitate internal trade, including a mutual recognition pilot project in the trucking sector (Canada 2025).

Outdated incorporated standards

A priority area for review under the NCP reforms should be to update legislation to reference the latest version of voluntary standards where appropriate.

Of the 3,743 references to Australian Standards in Commonwealth, state or territory Acts or subordinate instruments,[25] 1,403 (37%) are to Australian Standards that are superseded, obsolete or withdrawn (table B.7).

Table B.7 – Australian Standards (current and non-current) in legislation

References to Australian Standards in Commonwealth, state and territory legislation, classified by jurisdiction (as at 10 July 2025)

		Current		Non-current			
	Total	Current	Pending revision	Available, superseded	Superseded	Obsolescent	Withdrawn
Cth	1,128	574	106	287	113	2	46
NSW	611	217	80	230	71	1	12
SA	433	276	39	53	43	1	21
WA	348	168	42	88	32	4	14
Vic	347	196	46	72	18	0	15
Qld	306	173	48	53	23	0	9
Tas	200	105	29	42	18	0	6
ACT	185	96	27	40	16	0	6
NT	185	98	20	37	22	0	8
Total	**3,743**	**1,903**	**437**	**902**	**356**	**8**	**137**

[24] The free flow of goods and labour within Australia and with New Zealand is supported by the *Mutual Recognition Act 1992* (Cth) and *Trans-Tasman Mutual Recognition Act 1997* (Cth). More broadly, Australia's Constitution requires trade within Australia to be free (section 92)..

[25] Sometimes the same standard is referenced by multiple jurisdictions or in more than one law in a jurisdiction. For example, AS/NZS 4308:2008 on procedures for specimen collection and the detection and quantitation of drugs of abuse in urine is referenced in a range of laws including rail safety, civil aviation and detention centres.

Total	Current	Pending revision	Available, superseded	Superseded	Obsolescent	Withdrawn
	Current		Non-current			
3,743	2,340 (63%)		1,403 (37%)			

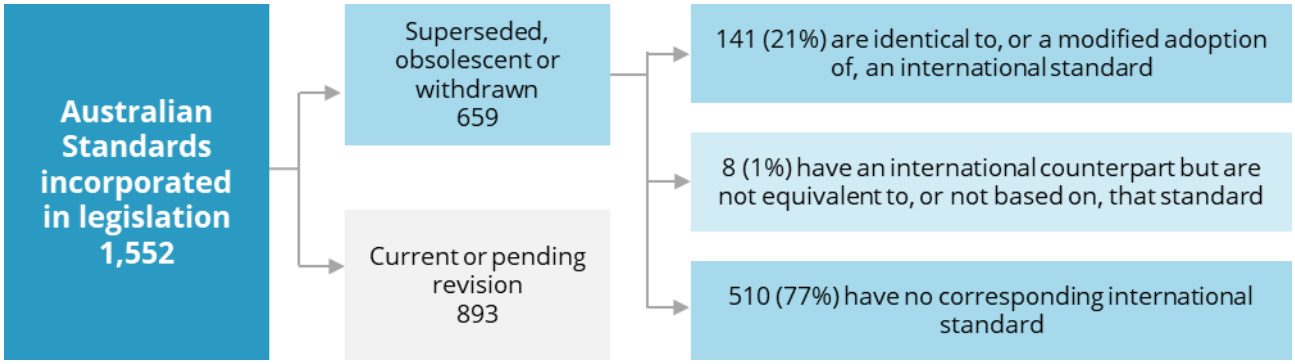
Source: PC estimates based on Standards Australia (pers. comm., 14 July 2025).

These 3,743 references in legislation cover the 893 standards which are current (or pending a revision) and an additional 659 (42%) which are not current (figure B.5). Of the 659 out-of-date Australian Standards:

- 141 (21%) were (at the time of adoption) identical to, or modified adoptions of, international standards
- 8 (1%) had an international counterpart but were not equivalent to that standard
- 510 (77%) had no corresponding international standard.

Figure B.5 – Legislation incorporating outdated Australian Standards

Commonwealth, state and territory legislation incorporating outdated Australian Standards as at 10 July 2025



Source: PC estimates based on Standards Australia (pers. comm., 14 July 2025).

To understand how these laws operate, it would be necessary to review, for many of the 659 outdated Australian Standards, the wording of the relevant Interpretation Act, enabling Act, delegated legislation and any subsequent Australian Standard. To quantify the net benefit of reform, it would also be necessary to identify whether the new edition aligns with an international standard, whether the legislation allows for use of the latest standard in its text and to establish a credible cost to business from finding and not following a lapsed standard.

Given this uncertainty, this subset of incorporated Australian Standards is not included in the net benefit analysis for this NCP reform; however it is an important priority area for review.

In some cases, legislative reference to an outdated standard is deliberate, or the legislation allows compliance with the latest version of the specified standard (known as 'in force from time to time') or with an equivalent standard. However, submissions also identified mandatory standards where reference to outdated standards is a problem. For example:

- Standards Australia (sub. 76, p. 11) referred to the Australian mandatory standard for bunk beds (Consumer Protection Notice No. 1 of 2003 (Cth)) which was introduced in 2003 and continues to reference the 1994 version of the voluntary Australian Standard (AS/NZS 4220:1994) even though the voluntary standard was updated in 2003 and again in 2010.

- Bicycle Industries Australia (sub. 68, p. 7) referred to the mandatory bicycle standard which has not been updated to incorporate revisions to the Australian Standard and is now operating from a 27-year-old standard.

A further complication is where states and territories adopt different implementation dates for updated standards, creating significant inefficiencies and compliance burdens for business (e.g. Air Conditioning and Mechanical Contractors' Association of Australia, sub. 63, p. 4).

As noted by the Australian Retailers Association, businesses can face an uneasy trade-off from outdated standards. They can minimise their compliance risk by complying with the outdated standard or ensure the highest level of safety by applying the most current voluntary standard (ARA 2024, p. 1) (e.g. bicycle helmets, attachment B.3). Standards Australia has expedited the process for updating Australian Standards when international standards are revised by allowing its technical committees to agree to approve automatically an international standard (including revisions) unless objections are received from members (Standards Australia 2023c, p. 7). However, the trade barrier remains if the legislation incorporating the Australian Standard is not also updated.

Participants had differing views as to whether governments should automatically incorporate, in legislation, revisions to referenced standards. For example:

- Lighting Council Australia referred to the compliance difficulties created by Australia's electrical safety regulatory frameworks lagging behind updates to incorporated standards, and proposed that Australia follow the EU's 'in-force from time to time' model (sub. 69, p. 4) (see also e.g. Australian Institute of Refrigeration, Air Conditioning and Heating, sub. 131, p. 2).
- The Australasian Injury Prevention Network considered that, where regulation gives an ambulatory operation to overseas standards, it is essential that regulators conduct regular reviews and that there is a safeguard mechanism to disallow the update if it introduces a lower safety threshold (sub. 30, p. 2).
- The Water Services Association of Australia supported streamlining the adoption of international standards but also referred to the need for a transition period allowing manufacturers time to adjust (i.e. redesign, re-tool, retest, and demonstrate compliance) (sub. 125, p. 3).
- Standards Australia's briefing note, which was referred to in a number of submissions, did not support the automatic adoption of overseas standards as it considered this would: devalue the expert input of Standards Australia's committees; cede Australia's sovereign right to assess what works best for Australia; create a system that favours speed over scrutiny, undermines trust in the regulatory process, and places quality and the safety of Australians at risk; and weaken Australia's global influence (e.g. Australasian Corrosion Association, sub. 14; and Australian New Zealand Biochar Industry Group, sub. 72).
- Parliamentary Committees have also raised concerns about the impact on the ability of Parliament to scrutinise changes in the law e.g. WA Parliament (2016, p. 118).

Other options to address the issue of out-of-date incorporated standards include setting performance requirements in regulation and listing the Australian Standard as 'deemed to comply' (e.g. the NCC) or requiring compliance with the specified standard or an equivalent or higher level of safety. Additionally, if Standards Australia was able automatically to notify jurisdictions that had incorporated Australian Standards in legislation (as occurs in some countries such as the Netherlands), and jurisdictions had a rolling mechanism to update their instruments, this issue could be resolved going forward.

Recommendation 1
Priority areas for reviews of standards

Australian, state and territory governments should review mandatory standards to improve alignment with other countries and across Australia, and to update outdated references to voluntary standards.

Australian, state and territory governments should prioritise reviews in five areas:

- **non-alignment with international standards:** review legislation incorporating Australian Standards that have an international counterpart but are not equivalent to that standard
- **bespoke Australian standards:** review legislation incorporating Australian Standards with no corresponding international standard – 90% of these standards are in the manufacturing; professional, scientific and technical services; and construction sectors
- **government-developed requirements:** review areas of legislation that do not incorporate Australian Standards but create trade barriers through misalignment with international or overseas standards – such as food safety and biosecurity
- **state and territory inconsistency:** review legislation that is inconsistent across jurisdictions and agree to harmonise mandatory standards across Australia, and
- **outdated standards:** update legislation to enable compliance with current versions of incorporated standards where appropriate.

Implementing standards reviews

The Commonwealth, states and territories are developing Competition Reform Guidelines for recognising and adopting voluntary standards (including international and overseas voluntary standards) in legislation (Treasury 2025). The draft Guidelines include the following steps for reviewing and updating mandatory standards:

- review and define the regulatory objective
- determine if an alternative policy tool to the mandatory standard can achieve the same regulatory objective at a lower net cost
- where mandatory standards are necessary to achieve the regulatory objective, identify, assess and recognise all appropriate international, regional, Australian and overseas standards
- where mandatory standards deviate from international, regional, Australian and overseas standards, ensure the least number of required modifications are made
- accept appropriate risk assessments, approvals and conformity assessment results from comparable regulators and/or conformity assessment bodies, and
- ensure consistency and interoperability with existing mandatory standards under the laws of the Commonwealth or another Australian state or territory, except where this creates excessive and unnecessary compliance barriers.

These proposed steps provide a useful roadmap for implementing recommendation 1.

Priority sectors

The Commonwealth, states and territories agreed to review references to voluntary standards in their respective legislation in priority areas identified through the Council on Federal Financial Relations by the end of 2025 (Australian Government 2025, p. 6). In September 2025, the Treasurer indicated that states will 'identify opportunities to harmonise standards in key sectors like building and construction, electrical

products, resource management, transport, renewable energy, agricultural and veterinary chemicals, and consumer goods' (Chalmers 2025).

Almost 90% of references in Commonwealth, state or territory legislation to Australian Standards (current and outdated) fall within 10 regulatory areas. These cover six of the seven potential priority areas announced by the Treasurer as well as work health and safety, dangerous goods, maritime, and food safety (table B.8).

Table B.8 – Regulatory areas incorporating Australian Standards

Top 10 regulatory areas (Commonwealth, state and territory legislation) incorporating Australian Standards (current and outdated) (as at 10 July 2025)

Regulatory area	Percent of legislative references to Australian Standards	Sub-regulatory areas (if applicable)
Energy and water	20% (739 references)	electrical (497), gas (90), energy (83), plumbing (69)
Work health and safety	18% (669 references)	
Road safety and transport	12% (443 references)	road safety (435), transport (4), vehicle safety (4)
Environment and planning	12% (433 references)	environment and planning (426), planning (4), heritage (3)
Building and construction	11% (413 references)	
Emissions, energy efficiency and water efficiency	6% (230 references)	energy efficiency (78), emissions (71), emissions and energy efficiency (60), carbon credits (16), water efficiency (5)
Dangerous goods	5% (181 references)	
Maritime	3% (100 references)	
Consumer goods	2% (73 references)	
Food safety	1% (51 references)	
Total	**89% (3,332 out of 3,743 references)**	

Source: PC estimates based on Standards Australia (pers. comm., 14 July 2025).

Key areas for review by Australian, state and territory governments under NCP should include:

- **Construction** – 138 (20%) of the 675 current incorporated Australian Standards with no international counterpart are in this sector. Although there is alignment in policy objectives to protect public and worker safety and the environment, regulation remains fragmented across states and territories. The PC also heard examples of where misalignment with overseas standards is hindering greater uptake of modern construction methods such as prefabricated and modular houses. Removing regulatory barriers to improving productivity can help deliver commitments by Australian governments to boost housing supply and affordability (attachment B.3).
- **Household electrical goods** – Around 196 Australian Standards relate to household electrical goods, of which 85% reference or appear to reference international standards. A key concern raised with the PC is the additional costs imposed by inconsistent state, territory and Commonwealth requirements for conformity assessment and post-market controls. The Australian Industry Group stated that these inconsistencies cost Australian consumers millions each year. There is no obvious benefit from

fragmentation given Australia relies on imported electrical products, supply is national and demand is increasing as Australia shifts to a digital and net zero economy (attachment B.3).

- **Packaging and waste reduction** – The transition to a net zero and circular economy requires the development of countless new standards ranging from electric vehicles to hydrogen energy (Standards Australia 2022, p. 7). In particular, participants referred to packaging and waste reduction as an important reform area that impacts multiple sectors ranging from food products to agricultural and veterinary chemicals. Divergence from major frameworks, such as the EU's Packaging and Packaging Waste Directive, and inconsistencies across states and territories is creating confusion for national businesses, imposing unnecessary compliance costs and undermining the efficiency and scalability of recycling efforts (attachment B.3).

The Australian Government could consider NCP funding to state and territory governments to undertake sector reviews, as it did for the ACCC to review ACL consumer product safety standards (ACCC, sub. 101, p. 2).

Beyond these initial priority areas, governments should prioritise reviews of standards that are affecting competition. More broadly than a sectoral focus, NATA submitted that, as a general principle, standards for goods and services that are the subject of international trade are where the focus should lie, in contrast to standards relating to purely domestic activities (sub. 37, p. 2). The Business Council of Australia also considered that Australia should prioritise the adoption of standards from jurisdictions with which Australia has significant trade relationships and broadly comparable regulatory and safety frameworks (such as the arrangements with New Zealand) (sub. 53, p. 6).

As noted by NATA and the Business Council of Australia, not every sector of the Australian economy can be traded internationally, or even across states and territories. For example, services such as rental housing, live entertainment, hair dressing and childcare are location-specific. However, even for location-specific services, inconsistency between states and territories or across countries can impose additional compliance costs on businesses operating in multiple jurisdictions, impacting Australian consumers. This is of particular relevance to businesses in Australian border towns (e.g. Cross Border Commissioners and Counterparts in New South Wales, South Australia, Queensland and Victoria, sub. 104, p. 1).

NCP provides an opportunity to progress not just a review by each government agency of its existing laws incorporating standards, but for the Commonwealth, states and territories to take a united approach to reforming sector-specific regulatory frameworks. The criteria for identifying priority regulatory areas for reform should include whether the area:

- incorporates voluntary standards
- is covered by inconsistent state and territory legislation
- creates a significant barrier to integrated national or international markets, whether due to traded goods or services or cross-border business operations, and
- impacts a significant part of the Australian economy – particularly where reform reduces compliance costs for Australian producers (section B.3).

Recommendation 2
Sector-specific standards reviews

Areas for review by Australian, state and territory governments under NCP should include mandatory standards relating to construction, household electrical goods, and packaging and waste reduction.

Improving mandatory standard processes

Governments should work with Standards Australia's technical committees where appropriate to review mandatory standards, however the onus of proof should continue to be on policy makers to justify mandatory standards that depart from international norms and create barriers to international or interstate trade.

Participants emphasised the importance of regulators collaborating with Standards Australia's technical committees when reviewing mandatory standards. For example, the Building Products Industry Council submitted that decisions on adoption and any necessary amendments should be considered and reviewed by local and subject matter experts on a scientific and technical basis (e.g. through existing relevant Standards Australia technical committees). Regulators undertaking this review risk creating a parallel system which undermines national consistency, bypasses Australia's transparent, consensus-driven approach, sidelines expert input and weakens trust in the system (sub. 106, p. 2).[26]

Standards Australia emphasised the need for regulatory reviews of incorporated standards to occur in conjunction with Standards Australia's technical committees to reduce the risk of further regulatory fragmentation. Parallel recognition systems operating outside the national standards body could risk undermining transparency, consistency, safety and ultimately public trust. More broadly, the OECD also emphasises the importance of coordination between governments and their national standards and quality assurance bodies (OECD 2025, pp. 44, 81).

However, public and private interests can diverge if businesses use standards or conformity assessments to inhibit competition. Some submissions raised concerns with the operation of Standards Australia's technical committees. For example:

- Lighting Council Australia submitted that, despite the current Standards Australia guidance, the justification provided by committees for national Australian variations is often weak and that undeclared conflicted national interests often advocate for Australian-specific standard variations (sub. 69, p. 3).
- Water Services Association of Australia suggested revisions to Standards Australia's processes to require a refusal to adopt an international standard to have a reasonable technical or cost/benefit analysis; and to streamline the process for stakeholder engagement (sub. 48, p. 5) (see also Glenn Toole, sub. 66, p. 2).
- The Australasian Corrosion Association recommended making it easier to repeal Australian Standards that unnecessarily deviate from international equivalents, and to adopt appropriate international standards that reflect Australian conditions e.g. BS 8102:2009 on waterproofing (sub. 113, p. 1).

Where new regulation is being developed and there is already an appropriate international or overseas standard, a second process to develop or revise an Australian Standard can also delay entry of the product on the Australian market and duplicates effort. The Australian Renewable Energy Agency's (ARENA) project to test vehicle-to-grid technology illustrates the potential costs (Menezes 2025, p. 64). Although the vehicles had been certified against overseas standards, the delay in updating the Australian Standard led to ARENA

[26] See also Australian Cablemakers Association, sub. 124, pp. 1, 3; Australian Council of Trade Unions, sub. 119, p. 2; Australian Department of Health, Disability and Ageing, sub. 121, p. 1; Australian Forklift and Industrial Truck Association, sub. 140, p. 3; Australian Glass and Window Association, sub. 108, p. 2; Australian Meat Industry Council, sub. 134, p. 4; Ruth Barker, sub. 148, p. 2; Britax Childcare, sub. 111, p. 2 in relation to overseas child restraint regulations; Cement Concrete and Aggregates Australia, sub. 115, p. 3; Construction, Forestry and Maritime Employees Union, sub. 130, p. 4; Consult Australia, sub. 4, p. 8; Electrical Trades Union of Australia, sub. 141, p. 6; Gas Energy Australia, sub. 109, p. 2; Master Electricians Australia, sub. 116, p. 3; Plastics Industry Pipe Association of Australia, sub. 117, pp. 1-2; Plumbing Industry Climate Action Centre, sub. 129, attachment p. 3; Resources Safety and Health Queensland, sub. 120, p. 2; Water Services Association of Australia, sub. 125, p. 3.

incurring additional costs. It also delayed the opportunity for consumers to plug in vehicles and to reduce the need for costly network augmentation by instead using vehicle batteries to store and return energy to the grid.

Standards Australia is piloting an 'equivalent standards' initiative as part of its adoption framework to more systematically consider overseas standards where international standards do not exist (sub. 147, pp. 3-4). Standards Australia is also reviewing its technical committee processes to strengthen governance, monitor conflicts of interest, and ensure impartial, public-interest outcomes (sub. 147, p. 3).

To further strengthen international alignment, the draft Competition Reform Guidelines (including the principle on recognising appropriate overseas standards) should be reflected in the Australian Government's Memorandum of Understanding with Standards Australia, and in Australian, state and territory government guidelines for assessing the impact of regulation. Alignment with international and overseas standards could also be reviewed as part of regular reporting by Standards Australia and a stocktake of Australia's regulation.

B.6 Access to standards

The cost of accessing incorporated standards is a barrier to compliance with the law and a deterrent to greater alignment of regulation with standards where regulation is necessary.

Standards Australia owns the copyright to its published standards. As a private not-for-profit body, Standards Australia requires payment for access to Australian Standards to cover its operating costs. Across the incorporated Australian Standards, 80% have a list price of less than $200 (Standards Australia, pers. comm., 14 July 2025). Standards Australia, as Australia's national standards body, also has the right to sell ISO and IEC standards, with Standards Australia making payment to the international bodies (ISO 2015, p. 41).

Easy access to the law supports compliance with the law and is also fundamental to fairness (Administrative Review Council 1992, p. 58). There is currently a tension where copyrighted standards or other material is incorporated in legislation. For example, the Australian Senate Committee for the Scrutiny of Delegated Legislation requires all documents incorporated by reference in legislative instruments to be available to the public free of charge. To address this requirement, Commonwealth agencies can make the incorporated standard available for viewing at their office or by appointment (Senate 2024, p. 19). This is of little practical value for businesses and other stakeholders.

In 2006, the PC recommended that access to incorporated standards be lower cost or free (PC 2023, p. 21).

> Mindful of the fundamental principle of transparency and accessibility of legal requirements, the Australian Government and other governments (through their agencies) should fund free or low-cost access to Australian Standards made mandatory by way of regulation. (PC 2006b, p. 130)

The PC also noted:

> Indirectly, therefore, the cost to the Government of subsidising access could perhaps, over time, be expected to reduce the number of regulatory references, by providing a further incentive to ensure standards are referenced only when clearly justified. (PC 2006b, p. 128)

The financial cost of accessing standards continues to be an issue nearly 20 years later. For example, TAFE Directors Australia referred to the significant fees required to provide students with access to the standards they need for their training (sub. 22, p. 3). The NSW Small Business Commission referred to the impact on small businesses, with frequent updates to standards requiring ongoing purchases (sub. 18, p. 4). The Australian Construction Industry Forum noted that around 120 standards are referenced in the NCC, and these standards often reference further standards, meaning that a business may need to access many

hundreds of standards (sub. 44, attachment p. 9).[27] Master Electricians Australia also referred to its contribution to the development of standards which it then has to pay to access (sub. 88, p. 9).

Costs to access the law harm competition

A policy intent of NCP is to remove barriers to interstate trade such as those arising through different regulatory standards (Federal Financial Relations 2024, p. 27). The use of standards in legislation should facilitate the free movement of goods and services across Australia. It allows government agencies to avoid duplication of effort and supports consistency across Australian jurisdictions and with industry best practice. It is unlikely that these benefits of harmonisation can be maximised if there is a barrier to businesses complying with the law because harmonised standards are behind a paywall.

The cost of purchasing incorporated standards is a fixed cost for businesses. This puts small firms and startups at a competitive disadvantage (Menezes 2025, pp. 50, 77). The NSW Small Business Commission provided the example of a small electrical engineering business needing to purchase hundreds of standards for a single infrastructure project, at a total cost that exceeded the project's profit margin (sub. 18, p. 4). The Australian Small Business and Family Enterprise Ombudsman noted that standards are an integral part of complying with legal obligations, yet accessing these standards cost a small business thousands of dollars a year (sub. 102, p. 5).[28]

Placing the law behind a paywall increases the risk of non-compliance. If non-complying rivals face lower operating costs, this impacts competition as well as creating a safety risk. Master Electricians Australia referred to the safety risk from contractors who lack access to the wiring rules, and the proliferation of pirated copies of standards, potentially with out-of-date information (sub. 116, p. 4).[29] Making mandatory standards freely available increases their use. In the Netherlands, the provision of free mandatory standards saw usage rates increase by six to ten times (NEN, pers. comm., 12, 24 September 2025).

There is an international trend towards free access to incorporated standards

Since the 1990s, there has been a trend towards free access to standards including by the ITU and European Telecommunications Standards Institute (Rutkowski 2024). While Australia led the way in the 1990s in developing web-based free access to legal materials (Rubacki 2013, p. 4), this has not extended to incorporated standards.

All national standards bodies in the EU are now required to have a free virtual read-only portal for harmonised standards (Danish Standards nd).[30] As at the date of this final report, a bill was before the US

[27] See also e.g. Air Conditioning and Mechanical Contractors' Association of Australia, sub. 126, p. 1; Australasian Corrosion Association, sub. 113, p. 1; Australian Council of Trade Unions, sub. 119, p. 2; Building Products Industry Council, sub. 106, p. 2.

[28] See also e.g. Australasian Bioplastics Association, sub. 105, p. 1; Australian Logistics Council, sub. 118, p. 2; Australian Meat Industry Council, sub. 134, p. 4; Australian Refrigeration Council, sub. 146, p. 5. Australian Retailers Association and National Retail Association, sub. 144, p. 2; Electrical Trades Union, sub. 141, p. 7; Gas Energy Australia, sub. 109, p. 2; Master Electricians Australia, sub. 116, p. 4; Water Services Association of Australia, sub. 125, p. 3.

[29] See also Australasian Corrosion Association, sub. 113, p. 1; Consult Australia, sub. 4, p. 9 and sub. 122, p. 1.

[30] Under Regulation (EU) No 1025/2012, the European Commission can request and finance European standardisation organisations to develop a European standard. Harmonised standards create a presumption of conformity when listed in the Official Journal of the European Union (OJEU) for a specific directive. As at October 2024, there were 2,961 such standards cited in the OJEU (Intellera Consulting 2025, p. 58).

Congress which would require standard-setting bodies to make 'incorporated by reference' standards publicly available in a readable, accessible format at no cost to users. The bill would not require the standards to be available for printing or downloading.[31]

One option being used in some countries, including France and the Netherlands, is for governments to compensate national standard-setting bodies for placing standards in the public domain (Kanevskaia 2025, p. 350) (box B.1).

Box B.1 – Public access to incorporated standards in the Netherlands

The Royal Netherlands Standardisation Institute (NEN) is a private, non-profit organisation that develops and manages standards in the Netherlands. Like Standards Australia, its business model includes selling access to these documents.

The Dutch Ministry of Economic Affairs provides NEN approximately €500,000 per year to enable free access to NEN standards incorporated in Dutch legislation (about 262 standards). This covers:

- standards where the law requires compliance with the standard or its equivalent
- national law, not subnational laws made by provinces and municipalities, except for permits.

Individual Ministries can fund NEN to provide free access to standards referenced in law or policy where compliance with the standard is not mandatory – NEN and the Dutch Ministry of Housing and Spatial Planning are developing an arrangement to provide free access to 123 construction standards for about €2 million per year as part of a broader government policy to increase housing stock.

The government funding, per free standard, is based on the estimated loss of revenue for NEN, using:[32]

- the average annual revenue from sales for standards available for 10+ years
- one life cycle's revenue (e.g. five years) for standards available less than ten years, and
- an estimate based on the number of stakeholders expected to access it for new standards.

On average, NEN is paid €1,908 per year (A$3,200) per free NEN publication (€500,000 divided by 262). If construction standards are included, the average is €6,494 per year (A$10,890) (€2.5 million divided by 262 + 123). Of NEN's total revenue of €45m per year, around €25m comes from standards development and €20m comes from access to standards.

When the scheme was introduced in 2016, each Ministry identified incorporated standards using the unique identifier. In 2017-18, a technical solution was developed via the Dutch government's legislation portal, wetten.overheid.nl (similar to the Australian Government's Federal Register of Legislation). This enables Ministries automatically to notify NEN when legislation incorporates a NEN standard, and enables NEN to notify the relevant Ministry when such standards are revised or withdrawn.

Source: NEN, pers. comm., 12, 24 September 2025; KWINK Groep (2023, p. 7); Netherlands Enterprise Agency, RVO (nd). NEN publications data is sourced from NEN Connect, https://connect.nen.nl/. Currency conversion is based on the Australian Taxation Office's average rate for the year ended 30 June 2025 (A$1 = €0.5963), www.ato.gov.au/tax-rates-and-codes/foreign-exchange-rates-annual-2025-financial-year.

[31] H.R.4072 – 119th Congress (2025-2026): Protecting and Enhancing Public Access to Codes Act of 2025 or the Pro Codes Act (23 June 2025).

[32] As construction standards have high download rates, €2m per year funding is required for 123 construction standards, in contrast to €500,000 per year for 262 mandatory standards.

A funding model for free access to incorporated standards should deliver the right incentives

Free access to incorporated standards in Australia requires a source of funding. Options include:

- *Australian governments* fund the provision by Standards Australia of free access – for example, by sponsoring the forward development of a standard and/or paying a licence fee to give free access.
- *Standards Australia* compensates for the lost sales revenue through other activities – for example, by increasing membership fees, increasing sponsorship for standards development, increasing the price of other standards, or providing value-add services.
- *User groups* pay Standards Australia – for example, an industry association pays for access to a standard by its members.

Ultimately, the funding model needs to deliver the core rationale for free access – ensuring fairness, supporting government objectives through legal compliance and enabling well-functioning, competitive and integrated markets. This suggests that a funding model should be assessed against the following four principles:

- Does it enable *businesses and other stakeholders* to access the standard for free to support compliance with the law (including through training) and hold regulated entities to account for non-compliance?
- Does it incentivise *government agencies* to regulate only where it is effective and the most efficient option? If regulation is necessary, does it provide an incentive to reference appropriate standards to support consistency across states and territories and with Australia's main trading partners, and to avoid duplication of effort?
- Is it financially sustainable so that *Standards Australia* continues to develop and update incorporated standards, and has an incentive to align with appropriate international and overseas standards?
- Is it *administratively simple* so that the pricing structure is easy to understand and low-cost to implement?

These principles point to the need for Australian governments to fund free access to incorporated standards:

- User group funding is unlikely to provide access to all stakeholders (e.g. training institutions or consumer groups). For example, Master Electricians Australia stated that, while it was fortunate to have a purchase arrangement in place to provide access to electrical Australian Standards to members, not all electricians are members (sub. 116, p. 4).
- Standards Australia, as a private body, should be compensated for reasonable operating costs. In contrast to European harmonised standards, Standards Australia is not funded by government to develop incorporated standards. While the short-term marginal cost of free access to an incorporated standard might be close to zero, requiring Standards Australia to absorb the cost is likely to impact Standards Australia's long-term financial viability and incentive to support incorporated standards.

The current arrangement where government agencies can incorporate a standard in legislation at no cost distorts incentives. On the positive side, it could mean government agencies are more likely to incorporate standards. However, it could also have the opposite effect of encouraging agencies to develop bespoke requirements given that the public would otherwise not be able to access the law. Parliamentary Committees often raise concerns about such material (ACT 2020; Senate 2019, p. 37), and agency compliance officers find it difficult to administer the law. The lack of ongoing cost also means agencies have less of an incentive to minimise regulation or to update legislative references when standards are subsequently withdrawn.

Free access to incorporated AS and AS/NZS standards: $7m per year

A starting point is to establish an estimate of the funding scope. As an indication, 1,263 (16%) of Standards Australia's 7,991 voluntary standards (including those marked 'available superseded' in addition to 'current'

and 'pending revision') are incorporated in legislation. Providing free public access to these incorporated standards could require a government subsidy to Standards Australia of around $7 million per year. This represents 16% of Standards Australia's royalty and e-commerce revenue ($45m) for 2023-24 (table B.9).[33]

The cost estimate of $7m per year does not account for different list prices, usage and curated subscriptions of standards. Standards Australia supported the draft recommendation on free access to incorporated standards but advised that the $7m per year estimate is not an accurate reflection on costs (sub. 147, pp. 3, 5).

Standards Australia also noted that it develops standards for the net benefit of Australian communities (sub. 147, p. 5). Many of these standards do not recoup the cost of development and are supported by revenue from a small number of standards with a broader footprint. This cross-subsidisation model was also raised by other participants (e.g. Plastics Industry Pipe Association of Australia, sub. 117, p. 2; Australian Meat Industry Council, sub. 134, p. 4).

The total funding required would be a matter for agreement between Standards Australia and the relevant Australian Government central agencies. Other countries can provide a useful benchmark. For example, applying the average funding in the Netherlands of A$10,890 (including construction standards, box B.1) suggests a total annual cost of A$13.8 million per year. That said, compliance costs for European standards organisations have been *decreasing* due to efficiency gains from enhancements in Information and Communications Technology (ICT) tools to monitor and report on the technical work (Intellera Consulting 2025, pp. 150, 155).

Table B.9 – Standards Australia financial reports

Standards Australia's revenue ($'000) and size of operation, financial years 2013-14 to 2023-24

	Operating revenue						Publications	
FY year end 30/6	Total revenue (operating and investment)	Royalty[a]	E-commerce[a]	Grant	Externally funded project	Recoveries and other income	Head-count	New[b]	Total
2024	63,656	39,805	5,228	4,762	3,235	707	292	453	NA
2023	62,613	39,783	3,378	3,142	2,282	521	318	396	NA
2022	60,380	41,236		2,327	923	453	259	406	NA
2021	61,203	38,443		1,626	352	558	237	484	NA
2020	54,966	35,617		2,686	1,470	536	174	372	6,750
2019[c]	36,477	14,721		2,628	392	573	125	361	6,776
2018	32,539	5,962		2,627	852	508	105	264	6,464
2017	30,300	6,892		2,656	922	923	109	304	7,372
2016	23,633	4,656		2,655	871	284	NA	369	7,891
2015	22,808	4,855		2,654	701	137	NA	340	10,092
2014	21,225	4,305		2,677	1,742	240	NA	267	8,688

[33] As the royalty and e-commerce revenue is generated from a broader range of publications than just the AS and AS/NZS publications, incorporated AS and AS/NZS publications are likely to be less than 16% of the total publications generating this revenue.

a. In the 2024 Annual Review, revenue for 2022-23 and 2023-24 from the sale of publications was separated into 'Royalties' and 'E-commerce revenue'. b**.** In the 2019-2024 Annual Reviews, 'new publications' did not include 'reconfirmed standards'. For consistency, this table excludes 'reconfirmed standards' from 'new publications' for 2014–2018. **c.** In 2019, the exclusive distribution arrangement with SAI Global Pty Ltd ended.

Source: Standards Australia Annual Reviews 2013-14 to 2023-24, (Standards Australia nd).

Implementing government-funded free access to incorporated standards in practice

There are several practical issues that would need to be addressed in designing a government funding model. The funding model should:

1. Apply to all standards incorporated in legislation rather than excluding 'deemed to comply' standards, as compliance with these standards is just as essential as for mandated standards.[34]
2. Provide full access rather than a more restricted form such as virtual read-only.

- The goal of promoting access to the law would be undermined by any scheme that places barriers to the convenient use of Australian Standards.
- In 2023, Standards Australia introduced a 'Reader Room' to provide read-only free access to certain Australian Standards although this requires registration, is only available for non-commercial purposes, and limits users to three access tokens over 12 months and access to a standard for a 24-hour period (Standards Australia nd). Consultation raised concerns with digital-only versions, referring to industry practice for tradespeople to carry a printed, often annotated, copy of the relevant standard in their vehicle for regular site reference (e.g. National Electrical and Communications Association, sub. 71, p. 6).[35]

3. Apply to AS and AS/NZS publications and other publications available on Standards Australia's website.

- In addition to AS and AS/NZS standards, Australian legislation can reference a wide range of other copyrighted standards, in particular, ISO and IEC standards. The funding scheme should extend to all incorporated documents published by Standards Australia. This would be to the extent permitted by Standards Australia's licensing arrangement with these other bodies.

4. Use a simple licensing fee paid by Australian governments to Standards Australia e.g. $5,635 per year (the average revenue per incorporated standard in 2023-24 if we assume all standards generate the same revenue) indexed to CPI per incorporated standard, rather than a more complex cost-based methodology.
5. Apply to Commonwealth, state and territory laws – to encourage national consistency, the Commonwealth should pay the full fee for a standard incorporated in Commonwealth law or intergovernmental schemes promoted by the Commonwealth, with the states and territories paying for other standards that they incorporate.

- States and territories should pay for other standards incorporated only in state or territory laws, with the cost per standard being apportioned across the jurisdictions that use that standard (e.g. if New South Wales and Victoria both incorporate a standard, they would each pay half of the illustrative $5,635 fee).

Apportioning costs across jurisdictions gives the following estimates (table B.10) – although the total cost of $7m p.a. may be higher after adjusting for prices and usage.

[34] See Case C-588/21 P, *Public.Resource.Org and Right to Know v Commission* ECLI:EU:C:2024:201.

[35] See also *American Society for Testing and Materials v Public.Resource.Org* 82 F.4th 1262, 1279 (D.C. Cir. 2023).

Table B.10 – Cost for free access to incorporated standards[a,b]

Estimate for each jurisdiction to provide free access to AS and AS/NZS publications (current, pending revision and available but superseded) incorporated in legislation

	$'000 (2023-24) per year
Cth	3,544
SA	913
WA	680
NSW	594
Vic	549
Qld	415
Tas	149
ACT	143
NT	131
Total	**7,117**

a. Assuming a price of $5,635 p.a. (2023-24) per incorporated standard (i) paid in full by the Commonwealth where incorporated in Commonwealth legislation or an intergovernmental scheme, and (ii) for other standards incorporated only by state or territory laws, apportioned across states and territories that incorporate the standard. **b.** The estimate only covers outdated standards classified by Standards Australia as 'available superseded'. The cost for each jurisdiction will be greater if the scheme is extended to standards classified as 'obsolescent', 'superseded' or 'withdrawn', or jurisdictions update these references with current standards.

Source: PC estimates.

Further consideration should be given to whether central or individual agencies bear the cost

Australia's funding model should incentivise individual Australian government agencies to: identify when they have incorporated a standard; notify the central agency and Standards Australia of the standard that should be free; and include the cost of free access as part of assessing the impact of regulation.

An annual payment creates an incentive for agencies to undertake a regular stocktake of where they have incorporated a standard, be clear as to which version has the force of law, and identify when a standard is being reviewed or has become outdated.

However, against this is the administrative cost of the scheme and relatively low funding amount required. The funding model proposed in this final report would require each jurisdiction's central agency to coordinate an annual review by individual agencies or the development of an automated system.

It would then require the information to be provided to the Commonwealth central agency to cross-check with Standards Australia and apportion the total cost across each jurisdiction according to the agreed funding model and MoU with Standards Australia, and each jurisdiction to pay an annual invoice, either to the Commonwealth central agency or directly to Standards Australia.

For the cost to be allocated to individual agencies, each jurisdiction's central agency would then need to apportion and invoice the amount across its individual agencies. This may end up being a very small amount – for example if Victoria and New South Wales both incorporate a standard, they would each pay $2,818 (half of $5,635). If two Victorian agencies incorporate the standard, each of those agencies would then pay $1,409 per year (half of $2,818).

One option is for the relevant Commonwealth, state and territory central agencies to absorb some of the cost on an ongoing basis but to allocate costs to those portfolios that make significant use of incorporated standards. It might also be possible for jurisdictions to reduce the scheme's administrative cost by leveraging and automating existing processes (e.g. the Commonwealth requirement to register an Act or legislative instrument on the Federal Register of Legislation).

Standards Australia has a continuing role in making standards more accessible

Regardless of any free public access scheme implemented through NCP, Standards Australia will retain an important role in making standards more accessible. Standards Australia has implemented a number of initiatives to improve access including the Reader Room, Custom Subscription Service (to allow a business to customise its standards subscription) and Curated Subscription Service (offering access to specialised content sets e.g. a small business can purchase mobile-only access for one user to 119 construction standards for $88.07 per year including GST). Master Electricians Australia also noted that it had recently entered into an MoU with Standards Australia and other industry leaders to develop a joint proposal to the Australian Government to secure a funding model that will improve access to incorporated Australian Standards for construction workers (sub. 116, p. 5).

Recommendation 3
Governments should fund access to standards in legislation

Governments should facilitate free access to standards incorporated in legislation. The cost of providing this access should be considered in any assessment of the costs and benefits of proceeding with a mandatory standard.

The reviews of incorporated standards (recommendation 1) are important to promote competition, but their outcome is necessarily uncertain; whereas funding free access to standards is a tangible action that would clearly promote greater accessibility of standards.

Attachment B.1 – Commonwealth impact analyses

Table B.11 – Commonwealth impact analyses estimating net benefits from harmonising Australian regulation with international or overseas standards

Impact analysis (date and title)	Quantitative net benefit estimate for reform and costs/benefits covered by estimate (not adjusted for inflation)	Other non-quantified costs/benefits identified in impact analysis
29 January 2025 Proposed Adoption of an Australian Sunscreen Exposure Model	-$32,442 p.a. *business: -$32,442 p.a.* *other: 0* (Recommended adoption of the Australian Sunscreen Exposure Model (ASEM) rather than the European Scientific Committee on Consumer Safety (SCCS) model. International alignment was estimated to reduce business compliance costs by $375 p.a., but adoption of the Australian model was estimated to reduce business compliance costs by $32,817 p.a.) Compliance costs would increase if SCCS model is adopted	SCCS model is based on data from research conducted in countries outside Australia, the ASEM reflects Australian conditions and consumer practices
08 January 2025 Regulation of Safety Standards and Information Standards	+$10 million p.a. per mandatory standard *business: +$10m p.a.* *other: 0* Compliance cost savings from aligning standards under the Australian Consumer Law with international and overseas standards	Extended product lines Reduced product prices Earlier introduction of products to market Safer products
02 October 2024 Draft Code for the Land Transport of Dangerous Goods	+$180 million p.a. *business: +$180m p.a.* *other: 0* Compliance cost savings from aligning Emergency Information Panel requirements for intermediate bulk containers with international practice	

Impact analysis (date and title)	**Quantitative net benefit estimate for reform and costs/benefits covered by estimate** (not adjusted for inflation)	**Other non-quantified costs/benefits identified in impact analysis**
11 September 2024 Anti-Money Laundering and Counter-Terrorism Financing Regime (AML-CTF) Reforms	-$200.9 million p.a. *business: -$320m p.a.* *other: +$119.1m p.a.* (But policy option recommended, including alignment with international standards set by the Financial Action Taskforce) Business burden ($13.9 billion over 10 years), customer burden ($209 million over 10 years) and government costs ($1.0 billion over 10 years) Reduced community harm from crime ($2.4 billion over 10 years) and benefit from not being 'grey listed' ($10.7 billion over 10 years)	Anticipated benefits from reduced crime and avoiding negative impact on foreign investment in Australia from grey listing likely to be much higher
02 May 2024 Improving Pedestrian Safety – Acoustic Vehicle Altering Systems for Quiet Road Transport Vehicles	+$6 million p.a. *business: -$4.8m p.a.* *other: +$10.8m p.a.* (Policy option to require fitment of AVAS to light and heavy vehicles (consistent with UN regulation) but with later implementation timing: Net benefit of $208.4m over 35 years) Implementation costs for vehicle manufacturers but most also supply vehicles to markets where AVAS is already mandated Consumers and road users benefit from reduced risk of collision, particularly blind and low vision community Government benefits from reduced road trauma	

Impact analysis (date and title)	**Quantitative net benefit estimate for reform and costs/benefits covered by estimate** (not adjusted for inflation)	**Other non-quantified costs/benefits identified in impact analysis**
07 July 2023 Televisions, computer monitors and digital signage display - GEMS energy efficiency requirements	+$68 million p.a. *business: 0* *other: +$68m p.a.* (Adoption of EU 2023 regulations in 2025: Total NPV benefit of $1,720 million and cost of $355 million, 20-year period assumed for NCP study) Cost of electricity Regulatory costs for government and suppliers Price on GHG emissions Peak demand benefits Changes to the cost of products	Additional benefits not modelled: Indirect health benefits from the reduction of fossil fuel generation produced from program energy savings Macroeconomic effects where expenditure and investment options are available using the monetary value of energy savings Effects of reduced household energy consumption leading to lower energy bills and reduced financial stress Changes in wholesale electricity prices or investment in generation caused by changes in future electricity demand resulting from the policy improved electricity system reliability.
18 January 2023 Updating the ASIC Derivative Transaction Rules (Reporting) 2013	- $3.7 million p.a. *business: -$3.7m p.a.* *other: 0* Compliance cost	Benefits from harmonisation to international standards: Reduced cost and complexity for industry Improved data quality for the Australian regulators More comprehensive and fit-for-purpose trade details Improved inter-jurisdictional data handling

Impact analysis (date and title)	**Quantitative net benefit estimate for reform and costs/benefits covered by estimate** (not adjusted for inflation)	**Other non-quantified costs/benefits identified in impact analysis**
19 October 2022 Heavy Vehicle Emission Standards for Cleaner Air	+$238 million p.a. *business: -$37.7m p.a.* *other: +$275.7m p.a.* (Net benefit of $6,428 million by 2050, 27 year period assumed for NCP study) Health benefits Fuel savings Higher capital costs for heavy vehicle manufacturers Increases in operating costs for heavy vehicle operators and road managers	
02 June 2020 Review of the unwanted emission boundary core condition on 3.4 GHz spectrum licenses	$0 *business: 0* *other: 0* Regulatory cost is zero	Licensees will not have to modify spectrum equipment to meet an Australian-specific condition Remove delays in deploying new technologies Depending on another review, potentially enables existing licensees to make use of existing equipment, cost savings $30-$75 million
13 March 2020 Standardised Measurement Approach to Bank Operational Risk	-$1.09 million p.a. *business: -$1.09m p.a.* *other: 0* Compliance cost	Australia's capital framework aligns with Australia's international commitments
06 March 2018 Review of the *Motor Vehicle Standards Act 1989*	+$49.2 million p.a. *business: +49.2m p.a.* *other: 0* Compliance cost saving from international harmonisation (to the point of accepting International Whole of Vehicle Type Approvals) (Note that this impact analysis relates to reform of a legislative regime rather than specific mandatory standards. However, there were only 3 unique Australian light vehicle standards remaining)	Total estimated reduction of regulatory burden from the full reform: $69 million p.a., including from introduction of the Register of Approved Vehicles and consolidation of concessional schemes

Impact analysis (date and title)	**Quantitative net benefit estimate for reform and costs/benefits covered by estimate** (not adjusted for inflation)	**Other non-quantified costs/benefits identified in impact analysis**
16 November 2017 Strengthening Airside Security at Major Australian Airports	-$720,000 p.a. *business: -$720,000 p.a.* *other: 0* Compliance cost	Substantially reduced risk of an insider attack that currently has a risk adjusted cost of $872 million over 10 years Full compliance with international aviation security requirements, allowing full participation in international markets Avoids reputational damage and maintains Australia's ability to access key economic markets, ensuring confidence in travel and trade
09 February 2017 Managing the risks associated with lead in the workplace	+$2.1 million p.a. *business: -$2.7m p.a.* *other: +$4.8m p.a.* Compliance costs (testing and control measures) Health benefits from lowering lead levels in line with international standards Reduced workers compensation claims	

Impact analysis (date and title)	**Quantitative net benefit estimate for reform and costs/benefits covered by estimate** (not adjusted for inflation)	**Other non-quantified costs/benefits identified in impact analysis**
22 July 2016 Extractive Industries Transparency Initiative (EITI)	-$120,000 p.a. *business: -$120,000 p.a.* *other: 0* Compliance cost	Demonstrating Australia's continual leadership with respect to transparency Keeping step with Australia's developed peers that are implementing the EITI, thereby allowing Australia to more credibly lobby other countries to implement the EITI Providing an opportunity for the extractive industry to demonstrate its contribution to the economy through an independently verified report Contributing to improving investment opportunities and level the playing field for Australian companies looking to invest overseas Strengthening relationships between industry and their stakeholders, and facilitating knowledge sharing with respect to existing payments Creating a very low probability of finding an instance of corruption or bribes, which, once mitigated, would result in increased revenues for public expenditure
22 January 2016 International Harmonisation of Medicine Ingredient Names	-$130,000 p.a. *business: -$130,000 p.a.* *other: 0* Compliance cost	Reduced risk of incorrect use of medicines Improved access to international medicines information Clarity for patients and healthcare providers Small reduction in barriers to trade for individual companies, however it is not expected to have a noticeable effect on the market overall

Impact analysis (date and title)	Quantitative net benefit estimate for reform and costs/benefits covered by estimate (not adjusted for inflation)	Other non-quantified costs/benefits identified in impact analysis
23 January 2015 Revised Accounting Standard for Financial Instruments – Regulation Impact Statement – Australian Accounting Standards Board	-$1.9 million p.a. *business: -$1.9m p.a.* *other: 0* (Implementation costs: $303 million, recurring: $1.9 million p.a.) Compliance cost	Australian entities can continue to obtain the benefits of preparing financial statements that are in compliance with International Financial Reporting Standards (IFRS) With ongoing efficiencies in the financial reporting process, many of those costs are expected to reduce over time
16 November 2012 Australian and New Zealand Sunscreen Standard AS/NZS 2604:2012 – Regulation Impact Statement – Department of Health and Ageing	+$15 million to $30 million p.a. ($23 million p.a. used for NCP study) *business: 0* *other: +$23m p.a.* Australian health system savings from lower skin cancer rates	It will cost industry $45,000-$175,000 to develop a new sunscreen in line with the new standard – a similar cost to the previous standard It is likely that the price to consumers of a SPF 50+ sunscreen will be 15% to 30% higher than a typical SPF 30+ product However, the products will deliver significantly better protection from harmful UV radiation than those currently available in Australia.
26 March 2012 Amendments to Vehicle Standard (Australian Design Rule 4/05 – Seatbelts) 2006 – Regulation Impact Statement – Department of Infrastructure and Transport	+$276,219 p.a. *business: 0* *other: +$276,219 p.a.* Assists manufacturers to supply to both the Australian and international markets Reduced road trauma resulting from unrestrained vehicle occupants.	
Average quantitative net benefit estimate	**+$20.4 million p.a. per harmonised mandatory standard**	

Impact analysis (date and title)	**Quantitative net benefit estimate for reform and costs/benefits covered by estimate** (not adjusted for inflation)	**Other non-quantified costs/benefits identified in impact analysis**
Average if outliers excluded [a] Excludes 3 impact analyses where quantitative net benefit estimate is: - less than -$100m p.a., or - more than +$100m p.a.	**Not adjusted for inflation:** **+$10.1 million p.a. per harmonised mandatory standard** *business cost benefit: +$2.9m p.a.* *other benefits: +$7.1m p.a.*	**If each impact analysis is adjusted for inflation:** **+$11,474,982 p.a. per harmonised mandatory standard (rounded down to $11m p.a.)** *business cost benefit: +$3,549,114 p.a. (rounded to $3.5m p.a. or 30%)* *other benefits: +$7,925,868 p.a. (rounded to $8m p.a. or 70%)*

a. The exclusion of 3 outliers (anti-money laundering, transport of dangerous goods and heavy vehicle emissions) also reflects the impact analysis process. The Australian Government Guide to Policy Impact Analysis (2023) requires policy proposals to be accompanied by impact analysis if the proposal would result in a more than minor change in behaviour or impact for people, businesses or community organisations (with exceptions). A preliminary Assessment is required to determine if the impacts are more than minor. In practice, this means that proposals to align an existing regulation with an international standard commonly do not proceed to a published impact analysis where the reform reduces compliances costs without impacting safety or other government objectives. This suggests that there are likely to be a significant number of past standards reforms, which are not reflected in the impact analyses, where there are smaller net benefits.

Source: PC estimates based on impact analyses and reports published by the Office of Impact Analysis, Australian Government Department of the Prime Minister and Cabinet at https://oia.pmc.gov.au/published-impact-analyses-and-reports.

Attachment B.2 – Economy-wide modelling

The letter commissioning this study requests the PC to 'provide an assessment of the economic and revenue impacts' of each of the reforms in this study.

As noted, a case-by-case review by regulators is required to identify which Australian mandatory standards should be more closely aligned with international or overseas counterparts, and how this impacts businesses and consumers.

Given this, the PC has used past impact analyses as an indicator of the potential economic impact that harmonisation could have across the broad spectrum of mandatory standards covered by this NCP reform. This produces an average net benefit of $11 million per year after adjusting for outliers and the effects of inflation – 30% is from lower business costs and 70% is from other benefits such as health benefits due to fewer deaths, injuries or illnesses (derived from table B.11). Applying the average of $11 million per year to 174 standards suggests a total net benefit of:

- $1.9 billion per year if a standard incorporated by one state or territory impacts a national market, or
- $1.1 billion per year if a standard incorporated by one state or territory only impacts that jurisdiction (table B.2).

The sample of impact analyses does not quantify downstream economic impacts from lower business costs. Given this, the PC has used the PC National computable general equilibrium model to provide an indicative outer-envelope guide of the potential long-run, economy-wide effects of increasing alignment between Australian mandatory standards and international and overseas standards. The approach mirrors that used previously to quantify the effects of various NCP reforms (PC 2024). Consequently, the modelling presented here adopts similar assumptions and is subject to the same limitations.

The modelling presented here is based on the upper bound estimate of the net economic benefit of $1.9 billion in 2024 dollars (table B.2[36]), with 30% of this net benefit flowing through to businesses as lower business costs. This gives:

- an annual reduction in business costs of $570 million (30% of $1.9 billion) which is used in the CGE modelling, and
- an annual non-business cost benefit of $1,330 million (70% of $1.9 billion).[37]

The $570 million annual reduction in business costs was adjusted from 2024 dollars to 2018-19 dollars to align with the reference year in the PC National database. This gives a business cost reduction of $410 million in 2018-19 dollars, which is used to calculate the shocks applied to the PC National model.

As outlined in section B.4, aligning Australian mandatory standards with international and overseas standards benefits both importers (by removing the additional cost of complying with Australian standards given that they already comply with the international or overseas standard) and Australian producers (by reducing their compliance costs, particularly for those that also export).

In the absence of information on the nature, magnitude and source of differences between each Australian mandatory standard and international or overseas standard, it is unclear as to how much of the reduction in business costs will fall to importers and how much to Australian producers. The economic incidence of the

[36] The lower bound estimate of $1.1 billion would yield results that are 57% of those obtained using the upper bound estimate of $1.9 billion.

[37] Examples of non-compliance benefits include lower greenhouse gas emissions and lower pollutants from adopting overseas vehicle emissions standards. These effects do not fall within the scope of the ABS Input-Output tables and, hence, are not reflected in the PC National database.

reform is likely to lie somewhere between the two extremes — the reduction in business costs falling only on importers and the reduction falling only on Australian producers.

Given this uncertainty, the economy-wide modelling considers three alternative scenarios in which the annual reduction in business costs results in:

1. cheaper imports of the goods subject to the Australian standards (corresponding to the reduction in business costs falling only on importers)
2. cheaper imported goods *and* lower costs for Australian producers (a combination of scenarios 1 and 3)
3. lower costs for Australian producers of the goods that are subject to the Australian standards (corresponding to the reduction in business costs falling only on Australian producers).[38]

The implied reduction in the cost of imports from standards harmonisation (scenario 1) is modelled as a reduction in the price of imports of these goods. The implied reduction in the cost of domestic production (scenario 3) is, in the absence of detailed cost information on the activities affected, modelled agnostically as an improvement in the use of all inputs used in production (i.e. as an improvement in total factor productivity (TFP) in each sector). The implied reduction in scenario 2 is modelled as a fall in the price of imports *and* a TFP improvement, where the cost savings are allocated across Australian production and imports in proportion to their share of total use in 2018-19 (table B.12). As the reduction in business costs in scenario 2 are spread across both importers and Australian producers, the magnitude of the shocks applied to imports and TFP are smaller than the corresponding shocks in scenarios 1 (imports) and 3 (TFP).

The modelling assumes that the standards apply to the three key sectors covered by the Australian mandatory standards:

- manufacturing
- construction
- professional, scientific and technical services (table B.6).[39]

The modelling agnostically applies the shocks (import prices and/or TFP improvements) to all industries or products in the model database that fall within each of these three sectors.[40]

[38] Aligning Australian standards with their international counterparts is likely to produce cost savings for *both* importers and domestic producers. As the economy-wide effects will depend on the actual distribution of any cost savings across importers and domestic producers, which will vary depending on the standard concerned, this scenario provides an upper bound of what the economy-wide effects may be if the cost savings only benefited domestic producers. Scenario 2 looks at effects of cost savings flowing through to both parties.

[39] These three sectors account for 90% of current incorporated Australian Standards with no international counterparts (table B.6). There are significant limitations to this analysis. While an Australian Standard may be classified in one of these three ANZSIC codes, the mandatory standard may cover a different sector – for example, an Australian Standard classified as 'professional, scientific and technical services' may prescribe a test that is incorporated in a mandatory standard applying to consumer goods.

[40] The industries in the PC National database are those in the *ABS Input-Output tables, 2018-19*. There are 51 industries/products in the manufacturing sector, one in the professional, scientific and technical services sector and four in the construction sector.

Table B.12 – Derivation of model shocks from mandatory standards harmonisation

	Manufacturing sector	Construction sector	Professional, scientific and technical services sector	Sectors covered
Economic activity, 2018-19 ($m)				
Australian production	349,714	481,901	199,936	1,031,551
Imports	313,469	52	9,831	323,352
Total uses	663,183	481,953	209,767	1,354,903
Allocated cost savings through reform ($m)				
Upper estimate	202	146	64	412
Shocks scenario 1:				
• Fall in import prices only (%)				0.13[b]
Shocks scenario 2:				
• Fall in import prices (%)				0.03[c]
• TFP improvement (%)[a]				0.03[c]
Shocks scenario 3:				
• TFP improvement (%)[a]				0.04[d]

a. Modelled as total factor augmenting technical change, which has the opposite sign to the improvement in TFP. **b.** $412 million divided by $323,352 million x 100. **c.** $412 million divided by $1,354,903 million x 100. **d.** $412 million divided by $1,031,551 million x 100.

Source: PC estimates based on ABS 2021, *Australian National Accounts: Input-Output Tables, 2018-19*, Cat. no. 5209.0.55.001, table 2.

Economy-wide impacts

The modelling indicates that a potential outer envelope of the annual long-run economy-wide effects of the reduction in business costs from standards harmonisation would be in the order of $530 million to $1 billion in 2023-24 dollars (0.02% to 0.04% of GDP) (table B.13). These modest gains come from two main sources:

- First, mandatory standards harmonisation would reduce the cost of importing and, hence, the price of affected imported goods. Lower import prices would benefit Australian consumers of these goods (including businesses).
- Second, mandatory standards harmonisation would reduce the resources that Australian businesses need to devote to complying with Australian mandatory standards, reducing their business costs and freeing up resources for use by other, more profitable sectors.

The modelling shows that the long-run economy-wide impacts from aligning standards are likely to be sensitive to how any potential cost savings impact the economy (table B.13). The production benefits (as measured by the increase in real GDP) are likely to be higher when aligning standards reduces business costs for Australian producers (scenario 3). This 'productivity improvement' frees up resources for use by other Australian producers (particularly labour and capital). This would increase the effective supply of these resources relative to existing demand and reduce their cost across the economy.

Lower input costs would reduce production costs and, over time, would be expected to flow through to lower output prices for domestically produced goods and services, increasing their international competitiveness and lead to increased demand for their output. Additional production would be required to meet this increase in demand (hence, the increase in real GDP). This additional production would require the use of additional

foreign-owned capital, which would entitle their owners to a share of the additional Australian production. This would lead to a smaller increase in national income (real GNI) than national production (real GDP). Changes in the price of Australian exports relative to Australian imports (the terms of trade) affects the purchasing power of the change in national income (real GNA). Cost savings that fall on import prices (scenario 1) have a stronger effect on the real purchasing power of Australian income (real GNA) than they do on Australian production (real GDP).

As importers and domestic producers would benefit from mandatory standards harmonisation, the outer envelope of the annual long-run economy-wide effects of the reduction in business costs would be expected to lie somewhere between scenarios 1 and 3. Scenario 2 provides an assessment assuming business cost savings accrue proportionately between importers and domestic producers *if* the reduction in business costs was distributed according to their respective shares of economic activity in 2018-19 (24% and 76%, respectively). The annual gain in GDP in this scenario from the reduction in business costs would be in the order of $0.8 billion (0.03% of GDP). Including the non-business cost benefit of $1.33 billion (70% of $1.9 billion) would lift the outer-envelope of the annual total economy-wide benefit from mandatory standards harmonisation in scenario 2 to $2.2 billion.

Table B.13 – Long-run economy-wide impacts from standards harmonisation

	Scenario 1 Imports only	Scenario 2 Imports and Australian production	Scenario 3 Australian production only
Real gross domestic product (GDP)	0.02	0.03	0.04
Real gross national income (GNI)	0.01	0.01	0.01
Real gross national absorption (GNA)	0.03	0.01	0.00
Real household consumption	0.03	0.01	0.00
Real investment	0.02	0.01	0.01
Real government consumption	0.01	0.01	0.01
Export volumes	0.04	0.10	0.13
Import volumes	0.07	0.01	-0.01
Real wages[a]	0.06	0.02	0.01
Rate of return[b]	0.00	0.00	0.00
Employment[b]	0.00	0.00	0.00
Capital stock	0.04	0.03	0.03
Exchange rate[c]	0.00	0.00	0.00
GDP deflator	0.01	-0.02	-0.03
Consumer price index	-0.01	-0.02	-0.02
Export prices	-0.01	-0.02	-0.03
Import prices	-0.10	-0.02	0.00
Terms of trade	0.09	0.00	-0.03

a. Real wage deflated by the consumer price index. **b.** The rate of return to capital and aggregate employment are held fixed in the modelling environment. **c.** Model numeraire. Held fixed by assumption.

Source: PC estimates.

Attachment B.3 – Case studies and areas to review

Case study: sunscreen products

Despite the small number of Australian Standards that have an international counterpart but are not equivalent to that standard, these standards can create trade barriers when incorporated in legislation.

Accord Australasia provided the example of AS/NZ 2604 Sunscreen products – Evaluation and classification incorporated in regulation by the Therapeutic Goods Administration (TGA) (sub. 46, pp. 8-9 and sub. 112, pp. 3-6).

At the time this Australian Standard was made, it was classified as 'no international standard exists'. Accord submitted that, while it is correct to say that there is no international equivalent, this is due to the Australian Standard adopting only some of the relevant ISO standards (e.g. adopting only one of the two available ISO test methodologies for determining 'broad spectrum') and adding other regulatory elements.

This means that, where an overseas company tests their products to one ISO standard, to enter the Australian market, they need to retest to the other ISO standard. This similarly impacts an Australian company that wants to market their sunscreens in another country. This increases the cost of sunscreen products for the Australian public and makes Australian exporters less competitive. Accord estimated that being able to use the alternative test could cut SPF testing costs by approximately 90%, potentially saving $2 million in just one round of formulation changes for sunscreen products on the Australian Register of Therapeutic Goods.

Accord also submitted that the two-step process of considering whether to adopt the ISO standard in the Australian Standard and then regulatory consideration by the TGA added time and complexity. Accord proposed adoption of ISO standards as Australian Standards, and removing the regulatory elements from the Australian Standard to the regulators, allowing a transition period.

The TGA is currently reviewing SPF testing requirements, along with CHOICE's testing results (TGA 2025).

Case study: construction sector

Australia's construction sector illustrates the potential benefit of aligning Australian regulation with overseas standards, and across states and territories.

Building regulation for commercial and residential buildings in Australia is underpinned by the National Construction Code (NCC). The NCC is (PC 2025b, p. 34):

- produced and maintained by the Australian Building Codes Board (ABCB), a joint initiative of the Australian, state and territory governments
- implemented in each jurisdiction by state and territory governments, and
- reviewed and amended on a three-yearly cycle, but changes can be made mid-cycle if critical matters arise.

The NCC sets out two alternative compliance pathways: 'performance' and 'deemed-to-satisfy' solutions. 'Performance solutions' specify required outcomes but allow flexibility in how those outcomes are reached. 'Deemed-to-satisfy solutions' set prescriptive requirements for what, when and how to do something.

The NCC, in prescribing 'deemed-to-satisfy solutions', relies on bespoke Australian Standards. As at 10 July 2025, there were an estimated 154 current incorporated Australian Standards in the construction sector. Of these 154 standards, 13 (8%) were identical or modified adoptions of international standards, 3 (2%) did not align with existing international equivalents, and 138 (90%) had no international counterpart (table B.6).

The PC's research paper on housing construction productivity found that over the past 30 years the number of dwellings completed per hour worked by housing construction workers had declined by 53%, and the gross value added per hour worked had declined by 12% (PC 2025b, p. 2). One of the factors contributing to the decline in productivity is the regulatory constraints that inhibit a firm's ability to do things differently, for example by creating barriers to the adoption of prefabricated housing (PC 2025b, pp. 5, 30, 56) (see also Menezes 2025, p. 45 in relation to residential building supplies in New Zealand).

Participants in this study identified opportunities for innovation through expanding compliance options to recognise overseas standards and conformity assessments. For example, the NSW Small Business Commission referred to the need to recognise overseas assessments for the construction sector, providing the example of prefabricated and modular houses (sub. 18, p. 3). The Housing Industry Association cited the Singapore Product Listing Scheme which provides a list of recognised standards for fire safety products (sub. 78, p. 8). The Australasian Corrosion Association referred to the need to adopt a British standard on below ground waterproofing (sub. 113, p. 1).

Participants also identified Australian Standards that limit innovation. For instance, AS 3972-2010, which prescribes minimum Portland cement content, was flagged for review to allow greater flexibility in using supplementary materials to support lower-carbon cement (Cement Concrete and Aggregates Australia (CCAA) and the Cement Industry Federation, sub. 61, p. 2; CCAA, sub. 115, p. 4).

In addition, participants raised concerns about the impact of state and territory variations. For example, the Australian Institute of Building Surveyors referred to inconsistent approaches to the energy efficiency of buildings and environmental impact of building work (sub. 55, p. 6) (see also Australian Small Business and Family Enterprise Ombudsman, sub. 102, p. 6; CCAA and the Cement Industry Federation, sub. 61, pp. 2-3). As an illustration of this issue, the Victorian Better Apartment Design Standards require certain doors to have an opening width of at least 850mm whereas the ABCB Livable Design Standard requires a minimum width of 820mm (VBA 2024, p. 2). The Air Conditioning and Mechanical Contractors' Association of Australia also referred to the impact of different state and territory implementation dates (sub. 63, p. 4).

At the same time, participants noted the importance of standards reflecting unique Australian risks and retaining Australian expertise (e.g. Building Products Industry Council, sub. 106, p. 1). In addition, the Australian Institute of Building Surveyors was concerned that recognising internationally developed standards will add to the cost of assessment by surveyors (sub. 145, p. 6).

Engineers Australia said that the pause on changes to the NCC (O'Neill and Watt 2025):

> … presents a strategic opportunity to rethink how the NCC operates, with a renewed focus on innovation, productivity and its consistent application by both state and local governments. (sub. 128, p. 4).

Case study: packaging and waste reduction

Packaging and waste reduction are examples of regulatory areas where international standards are still emerging but inconsistency with overseas standards and across states and territories can impose compliance costs and harm competition and environmental objectives.

The PC, in its inquiry into the circular economy, identified the need to reduce unnecessary regulatory barriers by modifying or harmonising existing standards and specifications and developing new standards (PC 2025a, pp. 13, 46, 65). In September 2025, the Australian and New Zealand Governments released a report on regulatory standards acting as barriers to achieving net zero which highlighted two important areas for reviewing standards: electrical vehicle charging infrastructure and rechargeable batteries (Menezes 2025, p. 54). For example, as part of the NCP 2024 study, the PC estimated that adopting the ISO standard for

vehicle-to-grid bi-directional charging could produce a net present benefit of $2 billion by reducing the need to build capacity through grid-scale batteries (PC 2024, pp. 22, 93).

A number of participants to this study identified packaging and waste reduction as areas for reform. The Business Council of Australia said that Australia's packaging requirements diverge from major frameworks such as the EU's Packaging and Packaging Waste Directive and the US Food and Drug Administration's labelling standards. The Business Council of Australia also referred to the fragmented approach across states and territories to single use plastics and container deposit schemes. The Business Council of Australia said these variations create confusion for national businesses, impose unnecessary compliance costs, and undermine the efficiency and scalability of recycling and waste reduction efforts (sub. 53, p. 7).

IKEA said that, as a business operating nationally, it is becoming increasingly challenging and costly to implement plastic bans on a state-by-state basis (sub. 59, p. 1). The Australian Retailers Association and National Retail Association similarly stated that inconsistent single-use plastic bans, container deposit schemes and packaging requirements have become a growing burden for retailers (sub. 79, p. 4).

CropLife Australia highlighted that most crop protection products are imported pre-packaged to comply with overseas standards, and that divergence from these standards in Australia impacts availability, cost, and scalability of stewardship programs (like drumMUSTER and bagMUSTER) (sub. 137, p. 2). The co-regulatory approach of the National Environment Protection (Used Packaging Materials) Measure 2011 (Cth) had resulted in each state and territory regulator applying its own reporting templates, performance measures and compliance expectations (sub. 137, p. 4).

The CSIRO submitted that harmonised standards in the packaging and plastics sectors has the potential to reduce trade barriers, and identified a range of Australian, international and overseas standards that are likely to influence the development of plastics recycling in Australia, along with the need to reduce barriers to facilitate uptake (sub. 142, pp. 5, 8).

Veolia also referred to the EU Packaging and Packaging Waste Directive, noting that these standards are 'mature, enforceable, and already driving change in global supply chains' (sub. 114, attachment p. 3). More broadly, Veolia submitted that the circular economy and waste markets stand to benefit more than any other sector from this NCP reform (sub. 114, attachment p. 2). In particular, Veolia raised concerns with:

- fragmented approaches to landfill levy rates, product stewardship schemes and the export ban regime, and
- approval processes for energy-from-waste schemes which, despite embedding EU standards, require repeated technical reviews, impacting investment, jobs and delivery of waste reduction and energy.

In 2023, Environment Ministers agreed that the 'Federal government will step up as the new regulator of packaging standards' (Environment Ministers 2023). While agreement was not secured on a global plastics pollution treaty, the Australian Government is continuing to work with states and territories to phase out single-use plastics and reform Australia's packaging regulations (Watt 2025).

Case study: bicycle helmets

The regulation of bicycle helmets in Australia provides an example of how alignment with overseas standards can reduce business compliance costs and demonstrates the flow-on benefits for consumers from harmonisation. It also shows what happens when states and territories are not aligned.

It is a legal requirement for cyclists to wear helmets but very few, if any, bicycle helmets are manufactured in Australia, so helmets are imported. Bicycle Industries Australia estimates that around 1.2 million helmets with an average retail price of $55 are imported each year, suggesting Australians spend around $66 million each year on new bicycle helmets.

There is no international standard for bicycle helmets, however the two most widely used overseas standards are the EU and US standards.[41]

The ACCC estimated that alignment with the EU and US standards could save businesses $14m per year in compliance costs (consisting of savings in testing and compliance-related administrative costs). There would also be benefits from increased choice.

But the benefits did not materialise quickly, due to implementation issues. The ACCC's review of the bicycle helmet standard under the ACL commenced in 2016, and only in 2024 was the standard revised to allow compliance with both EU and US standards. Once changed however, states and territories did not adopt this change consistently.

State and territory road safety authorities administer laws that govern which helmets can be used by cyclists (through 'use' laws). Even though the ACL standard was changed, EU and US standards were not allowed to be used until each jurisdiction updated their road rules. New South Wales updated theirs first, in June 2024, with most – but not all – states and territories following.

The net result is that eight years after realising the value of harmonisation, most Australians are yet to see benefits from this harmonisation as the bicycle helmet market is national and differences across states and territories matter for importers and large retailers (Bicycle Industries Australia, sub. 68, pp. 3-4; and pers. comm., 14 July 2025).

Case study: electrical safety

The regulation of household electrical goods illustrates how alignment with international standards can be undermined by inconsistent state and territory legislation.[42]

The National Electrical Safety Taskforce found that approximately 85% of AS and AS/NZS standards for household electrical goods reference or appear to reference international standards (WA Department of Energy, Mines, Industry Regulation and Safety, sub. 47, p. 2). Participants in this study raised concerns about modifications by Standards Australia technical committees from international standards (e.g. Lighting Council Australia, sub. 69, p. 3; Glenn Toole, sub. 66, p. 2).

The most significant concern, however, was Australia's fragmented electrical product safety frameworks (e.g. ACCC, sub. 101, p. 2 and sub. 143, p. 2; Australian Industry Group, sub. 98, p. 8; Australian Retailers Association and National Retail Association, sub. 79, p. 6; IKEA, sub. 59, p. 2; Glenn Toole, sub. 66, p. 1). Each state and territory has its own legislative scheme. While Queensland, Tasmania, Victoria and Western Australia are signatories to the Electrical Equipment Safety System (EESS) and the Australian Capital Territory, the Northern Territory and South Australia are transitioning to this scheme, New South Wales operates a separate system (ERAC nd). At the federal level, the ACL governs recalls, bans and mandatory safety standards. This means suppliers of electrical products, both within Australia and importers, must comply with the EESS, the NSW system, various other state and territory requirements, and the ACL product safety regime.

[41] Bicycle Industries Australia did not support the adoption of the SNELL standard which it considered to be a lower quality standard (sub. 68, p. 4).

[42] This case study focuses on household electrical goods. Participants to this study raised other state and territory inconsistency issues in relation to the electrical industry such as standardising metering and Distributed Network Service Provider requirements (e.g. Master Electricians Australia, sub. 116, p. 3).

There is no obvious benefit to Australians from this fragmented system. Australia relies on imported electrical products, supply is national, and demand is increasing in response to advances in telecommunications and electronics technology, and the shift to low-carbon solutions (Lockrey et al. 2022, p. 13).

The Australian Industry Group estimated that these inconsistencies cost consumers millions each year. Differing requirements in the treatment of products when a standard is changed costs in the range of $0.55 million to $4 million. Other differences in marking requirements and dual certification add many more millions in unnecessary costs (Australian Industry Group 2022). Despite over a decade of industry engagement with governments, harmonisation remains unsolved (sub. 98, p. 10).

The Australian Retailers Association and National Retail Association similarly submitted that the current framework has led to 'duplication, gaps, and administrative complexity for retailers operating nationally'. They urged the PC to:

> consider household electrical regulation as a clear example of the costs of jurisdictional fragmentation, and to recognise the benefits of a nationally consistent framework. (sub. 79, p. 7)

Lighting Council Australia recommended expanding the use of the IECEE CB Scheme to reduce redundant Australian certification requirements, estimating potential annual savings in the millions for the lighting industry (sub. 69, pp. 3-4).

A 2024 review initiated by the Council on Federal Financial Relations recommended, among other things (Finance nd):

- updating the EESS framework to achieve consistent requirements across jurisdictions
- establishing a cross-government working group to enhance Australia's representation at the IEC and ISO, and to develop guidelines for modifications that are routinely required when adopting international standards, and
- agreeing on a national pathway for recognising appropriate overseas standards.

In November 2024, the Council on Federal Financial Relations agreed to create a National Meeting of Consumer Electrical Safety Ministers to oversee implementation of harmonised regulation. The NCP process provides an opportunity for governments to progress this reform by committing to a timetable for developing and implementing a single, uniform law governing household electrical product safety.

Participant views on areas to review

Legislation not incorporating an Australian Standard which creates a trade barrier

Legislation that does not incorporate an Australian Standard can still create a barrier to trade through misalignment with international or overseas standards.

Food safety standards and biosecurity were both identified by the Australian Industry Group as priority areas for reform (sub. 98, p. 9).

Other submissions on **food standards** include:

- Infant Nutrition Council – which referred to Australia's new labelling requirement for infant formula which it considers harms the competitiveness of Australian manufacturers in export markets by not aligning with the international Codex Alimentarius and regulatory frameworks in the EU, US and Hong Kong (sub. 38, p. 1).
- Australian Retailers Association and National Retail Association – who raised concerns with inconsistent food labelling and advertising rules across states and territories (sub. 79, p. 6).

- Australian Organic – which referred to the need for a national mandated organics standard to streamline exports, saving an operator $4,000 to $9,000 per year in additional certification costs (sub. 73, p. 4).

Some participants, however, did not support food standards as an area of review. For example, FSANZ submitted that it aligns food standards with Codex Alimentarius and other international benchmarks, and that where deviations occur, they are based on public health considerations and national policy guidance and are notified to the WTO. FSANZ also stated that no supporting evidence had been provided to demonstrate that infant formula labelling is inconsistent with international standards or poses trade-related issues (sub. 133, p. 2).

In relation to **biosecurity**, Shipping Australia referred to the high cost being borne by Australians from international trading vessels being turned away by state authorities despite meeting global biosecurity rules and receiving federal clearance to enter Australia (sub. 58, p. 2). Accord Australasia submitted that the biosecurity regulations for formulated cosmetics, personal care and cleaning products, appear to be focused on rigid rules and paperwork rather than managing risks (sub. 112, p. 8). In contrast, the Australian Council of Trade Unions submitted that, as for food safety, high biosecurity standards are significant positives for Australian workers and consumers, and protect the public and Australia's environment (sub. 119, p. 2).

Other sectors covered by Australia's WTO notification data were identified in submissions, including:

- **Consumer goods** – e.g. IKEA referred to mandatory standards under the ACL covering toppling furniture and infant sleep products where bespoke Australian requirements have imposed significant costs, impacting price and availability for consumers (sub. 59, p. 3) (see also Australian Retailers Association and National Retail Association, sub. 144, p. 2). In relation to toppling furniture, IKEA stated:

  > These products come through complex supply chains involving over 50 suppliers spread out globally, over half of them based in Europe. This has included additional supply chain costs … including the unboxing and labelling of thousands of products already onshore. While 12 months implementation of the standard was provided to Australian businesses (which is already very difficult for retailers with international supply chains) product-specific labelling guidance was provided by the ACCC just six months before the incoming legislation date. (IKEA, sub. 59, p. 3)

- **Road vehicles** – e.g. Heavy Vehicle Industry Australia noted the need for the regulatory environment to reflect Australia's larger heavy vehicle combinations but also referred to the impact of delays in updating the Australian Design Rules (ADRs) and conflicting jurisdictional requirements (sub. 35, p. 2). The Crane Industry Council of Australia referred to the cost and delay in Australia's import approval process, and recommended mutual recognition of the EU regulatory framework for mobile cranes (sub. 139, p. 3). The Australian Automotive Aftermarket Association emphasised that, while Australia cannot simply 'lift and apply' overseas vehicle standards, the current system for aftermarket vehicle modifications in Australia remains fragmented, with each state and territory applying its own interpretation of national guidance (sub. 127, pp. 2, 3). As of the date of this final report, the Australian Government had initiated an independent review of alignment of the ADRs with international standards (DITRDCSA 2025).
- **Therapeutic goods** – e.g. the NSW Small Business Commission referred to medical cleaning products which are not commercially viable to manufacture in Australia due to the expense and time required to obtain new approvals from the TGA, even when the product is identical to one already approved overseas (sub. 18, p. 3) (see also Accord Australasia, sub. 112, pp. 3-6). The Business Council of Australia noted significant reforms to improve international regulatory alignment but that businesses continue to report delays in TGA approval despite approval in other jurisdictions such as the EU (sub. 53, p. 8). Complementary Medicines Australia submitted that the 'process for addressing issues where default standards are out-of-date, inappropriate in the Australian setting, or not possible to conform to if there are methodological and laboratory issues, is not fit-for-purpose' (sub. 138, p. 3).

- **Chemicals** – e.g. Accord Australasia raised the lack of recognition of International Fragrance Association (IFRA) standards and related controls for risk management of fragrance ingredients (sub. 46, p. 5 and sub. 112, p. 6), although the Australian Department of Health, Disability and Ageing referred to the need for careful consideration for the regulation of industrial chemicals in Australia, and noted that IFRA standards are not subject to the same multilateral processes or WTO principles that define international standards (sub. 121, pp. 1, 5).

Although not appearing in the WTO notification data, other areas raised in submissions include:

- **Agricultural and veterinary products** – e.g. Animal Medicines Australia referred to the significant adaptive costs to register an animal health product, with every unique Australian requirement increasing the time, cost and complexity to bring new products to farmers (sub. 20, p. 3). A government-initiated independent review noted that many chemical reviews have taken more than a decade to complete, and certain chemicals remain under review after more than 15 to 25 years. Full implementation of the review's recommendations was estimated to reduce regulatory costs by $200 million over 10 years, including $5.5m per year from improving access to international registered products (Matthews et al. 2021, pp. 4, 5, 75) (see also Accord Australasia, sub. 112, p. 3). In contrast, CropLife Australia submitted that there is substantial international alignment in the regulation of agricultural chemicals in Australia, and that industry opposed the Matthews review due to the proposal to bypass the regulator (sub. 137, p. 8).
- **Environment-related corporate reporting and emissions reduction** – e.g. the Australian Logistics Council referred to the need for consistent emissions reporting obligations (sub. 28, p. 3). The Chamber of Minerals and Energy of Western Australia referred to the need for standards for low-carbon hydrogen (and derivatives) to be aligned with standards of other countries (sub. 49, p. 2).

Inconsistencies across states and territories

Participants in this study raised many potential sectors where mandatory standards could be more closely aligned across Australia.

- **Transport** – e.g. the Australian Logistics Council described the framework for freight vehicles as 'a patchwork of national guidelines, state regulations, and local government discretion' which creates operational inefficiencies, particularly at jurisdictional boundaries, in turn affecting ports, intermodal terminals, and rail hubs (sub. 28, p. 2). In its response to the interim report, the Australian Logistics Council supported the recommendations (which align with the National Freight and Supply Chain Strategy) but submitted that the report emphasised consumer and product markets, which underplays the importance of freight. In particular, the Council urged consideration of: freight-specific operational and digital standards as part of the modelling; and uniform standards supporting decarbonisation of fleet across modes (sub. 118, p. 1). The Australian Retailers Association and National Retail Association also identified freight and supply chain regulation as of high value to the retail sector, in particular variations in access, emissions, and fatigue rules which undermine national efficiency (sub. 79, p. 5 and sub. 144, p. 3).
- **Shipping** – e.g. Shipping Australia referred to the high costs, which are ultimately passed on to the end consumer, of conflicting jurisdictional requirements, and the need for a single set of shipping and port governance related laws in Australia (sub. 58, p. 2).
- **Dangerous goods** – e.g. Gas Energy Australia referred to the wide range of safety, transport, and handling standards applying to the LPG industry across states and territories, and the need to harmonise legislation and enforcement authorities (sub. 109, p. 2) (although CropLife Australia noted that Australia's Dangerous Goods Code is directly based on the United Nations Model Regulations on the Transport of Dangerous Goods, which supports safe and efficient cross-border trade (sub. 137, p. 7)).
- **Meat industry** – e.g. the Australian Meat Industry Council stated that there are at least 17 separate certification programs operating in the Australian beef industry alone, incorporating both voluntary and

mandatory standards. Inconsistency with international standards and across states and territories is imposing compliance costs for Australian red meat processing facilities that are far higher than those faced by global competitors. As a proportion of total processing costs, Australian certification costs are 182% higher than Argentina, 400% higher than the US and 667% higher than Brazil (sub. 134, p. 3).

- **Consumer products** – e.g. Bicycle Industries Australia referred to the impact of the Commonwealth excluding e-Bikes from road vehicle regulation, creating a fractured state-based approach to the e-Bike market (sub. 68, p. 5).
- **Workplace safety** – about 18% of legislative references to Australian Standards relate to work health and safety (table B.8). Participants referred to the significant burden imposed from inconsistent state and territory legislation, although this extends beyond standards. For example, Cement Concrete and Aggregates Australia submitted that the lack of harmonisation across state and territory workplace safety frameworks, particularly with respect to workers compensation, increases compliance costs and administrative complexity for companies operating across borders, and can lead to unequal outcomes for employees (sub. 115, p. 3) (see also e.g. Australian Retailers Association and National Retail Association, sub. 144, p. 3).
-

C. Occupational licensing

Key points

- **The fractured nature of occupational licensing in Australia creates anti-competitive barriers to interstate labour mobility, which reduces productivity growth. Past reforms have alleviated this by creating national licensing for health professions and automatic mutual recognition for many other occupations.**
- **Automatic mutual recognition retains existing state-based licensing requirements and can be quickly implemented for many occupations, although inconsistent application has hindered improvements to interstate labour mobility.**
  - Not all states have joined the automatic mutual recognition scheme (Queensland does not participate), and states and territories continue to exclude some professions.
  - The current implementation of automatic mutual recognition carries the risk that disciplinary actions are inconsistently enforced across state borders.
- **National licensing is best suited to occupations that are deemed high-risk as these occupations are commonly exempt from existing mutual recognition schemes, as well as occupations which provide credence goods as it can offer consumers a reliable signal of quality.**
- **The introduction of national licensing for high-risk occupations, above and beyond automatic mutual recognition, could increase labour mobility and productivity, but the available evidence suggests it may not have a significant effect.**
  - There may be other benefits to national licensing such as greater compliance. If national licensing is accompanied by harmonisation to a more stringent set of standards (beyond what currently exists in jurisdictions in a race to the top), there will likely be detrimental effects on productivity.

Occupational licensing places restrictions on those who may practise an occupation to protect worker safety and resolve information asymmetry issues for consumers. In Australia, occupational licensing is the responsibility of state and territory governments for many professions. The fractured nature of occupational licensing creates anti-competitive barriers to interstate labour mobility, which reduces productivity growth. There are two primary methods of alleviating this – mutual recognition and national licensing schemes.

Mutual recognition maintains state-based regulators and licences but allows these licences to be used in other jurisdictions. Mutual recognition schemes are relatively easy to implement and can be tailored to specific jurisdictional needs, although inconsistent application hinders their ability to improve interstate labour mobility.

National licensing schemes require harmonisation between state and territory standards and systems, which can be difficult to achieve but can circumvent some of the shortcomings of mutual recognition schemes.

C.1 About occupational licensing

Which occupations are affected?

About one in five occupations nationally have some form of formal restrictions as to who may practise them and what services may be performed (PC 2015, p. 5). These restrictions are variously referred to as licensing, registration or accreditation and are administered at different levels of government for different occupations. For example, electricians must obtain a licence with a state regulator (Energy Skills Australia, sub. 13, p. 1) whereas nurses must register with the national Nursing and Midwifery Board (AHPRA 2020).

There are often differences in licensing regimes across jurisdictions. For many occupations, licensing may only be required in some jurisdictions or to perform some of the tasks associated with that occupation. Including these occupations brings the proportion of licensed occupations closer to one in three (table C.1).

Table C.1 – Occupations with licensing requirements in Australia in 2021[a]

	Number of occupations	Employment
Not required	685 (68%)	8,405,370 (69%)
May be required	148 (15%)	1,835,820 (15%)
Is required	181 (18%)	1,883,220 (16%)
Total	1,014 (100%)	12,124,410 (100%)

a. 'Is required' indicates that there are occupational licensing requirements for the occupation in all jurisdictions. 'May be required' indicates that there are occupational licensing requirements in only some jurisdictions, or that only some of the tasks usually performed by the occupation require licensing.

Source: PC estimates based on ABS Census 2021 and JSA (2025).

Licensing requirements are prevalent across many occupations and industries. Some of the largest occupations for which licensing is required are truck drivers, teachers, healthcare professionals and tradespersons. In some jurisdictions licensing requirements also apply to occupations such as automotive mechanics, childcare workers and security officers.

The role of occupational licensing

Occupational licensing aims to mitigate risks to both workers and consumers by requiring workers to prove that they can practise their occupation safely and to an expected level of quality. Licensing is only one possible intervention which governments may use to achieve these outcomes and occupations are subject to a combination of regulatory requirements (PC 2023).

These interventions are not costless and there may be benefits to occupational licensing reform that removes unnecessary licensing arrangements or expands pathways and reduces qualification requirements. While important to enhancing productivity, these reforms are not the focus of this report and are instead covered in the PC's *Building a skilled and adaptable workforce* inquiry (2025).

An additional challenge is that occupational licensing is state-based for many occupations. Differences in the scope and requirements of many licences across jurisdictions and a lack of recognition of licences between jurisdictions imposes compliance costs on workers, which can affect their ability to move between states and territories for work. The request for advice for this study asks the PC to look at 'an occupational licensing scheme for electrical trades and other occupations that provides for labour mobility nationally'. This appendix examines the various approaches to alleviating these compliance costs and promoting labour mobility nationally.

The lack of interstate licence recognition for some occupations only affects a small proportion of the labour force. Using estimates from the Australian Bureau of Statistics (ABS) Census of Population and Housing (2021), only 5% of workers had moved state in the past five years and only 2% worked in a state other than their home state in the week preceding the census, although this may be artificially lower due to COVID-19 restrictions which were in place in some states in August 2021. This figure would also be artificially lower in occupations where workers are able to provide services remotely in another jurisdiction. It is possible that more workers would move interstate if licensing arrangements created fewer barriers.

C.2 What are the different approaches to licence interoperability?

There are two primary methods for alleviating the barriers that occupational licensing poses to interstate labour mobility in Australia – mutual recognition and national licensing. Mutual recognition schemes – automatic or non-automatic – rely on decentralised regulation and allow different regulatory systems to operate alongside one another. National licensing requires some degree of harmonisation and consolidation of regulatory systems. There is no standard approach and both options have the potential for significant operational variation.

Mutual recognition

The *Mutual Recognition Act 1992* (Cth) established the framework for the mutual recognition of occupational licences across jurisdictions. Mutual recognition allows workers who have a licence in one jurisdiction to obtain a licence in another jurisdiction without meeting all the requirements to obtain that licence, even though the requirements may differ across jurisdictions. Mutual recognition applies to all licences where there is an equivalent licence required in another Australian jurisdiction. Through separate agreements, New Zealand licence holders are also able to have their licences mutually recognised in Australia and vice versa (CJR Forum 2014, p. 13).

There are concerns that mutual recognition of licences encourages ‘shopping and hopping’, which refers to workers acquiring licences in the jurisdiction where licensing requirements are lower and then working in jurisdictions with higher licensing requirements. Shopping and hopping is, in part, a desired effect of a mutual recognition scheme. If one jurisdiction has unreasonably stringent licensing requirements for an occupation, the ability for workers to receive a licence in a less restrictive jurisdiction lowers the barriers to entry for that occupation without reducing standards to an unacceptable level. It also can promote regulatory competition, leading to regulators attempting to reduce licensing requirements or fees while still meeting the safety and quality expectations of their jurisdiction (PC 2015, p. 143).

However, by circumventing stringent licensing requirements, there is a risk that workers will not be able to provide services to the level of safety and quality expected by the community in which they work. Previous PC research (2015) has found no compelling evidence that any jurisdiction had set standards at a low enough level that would cause community expectations of safety and quality to not be met. This research also suggested that concerns about shopping and hopping stem from issues with the Vocational Education and Training (VET) sector, rather than lax occupational licensing requirements. Differences in standards of assessment between different VET providers mean that employers across jurisdictions may be unsure about the level of competence possessed by workers who received their qualifications in other jurisdictions.

Automatic mutual recognition

Automatic mutual recognition (AMR) allows for licensees from participating jurisdictions to work in any jurisdiction by simply notifying the jurisdiction where they wish to work that they possess a licence. This differs from non-automatic mutual recognition arrangements as licensees do not need to pay a fee to obtain a new licence or register with the new jurisdiction in addition to notifying the jurisdiction in which they wish to practise (box C.1). The compliance costs for occupations covered by AMR are significantly lower than those covered by mutual recognition.

In 2020, governments (except Queensland) established a system of AMR for a subset of mutually recognised licences across states and territories.

Box C.1 – The difference between automatic and non-automatic mutual recognition

Alex is a plumber who lives and works in Adelaide but would like to work temporarily in the Gold Coast, Queensland. Queensland does not participate in the AMR scheme, so Alex must apply for an equivalent licence in Queensland under mutual recognition. As part of their application, Alex must pay a licensing fee and provide their personal and business information, proof of identity and a copy of their South Australian plumbing licence to the Queensland Building and Construction Commission. After their application is reviewed, Alex may be issued with a Queensland plumbing licence which can be used to work as a plumber in Queensland.

Catherine is a plumber who lives and works in Adelaide but would like to work temporarily in Tweed Heads, New South Wales. Since New South Wales participates in the AMR scheme, Catherine can work as a plumber in New South Wales after submitting their proof of identity, address and licence to the relevant regulator via the online Service NSW platform. After they have submitted these documents, Catherine is able to work as a plumber in New South Wales using their South Australian licence.

Source: DoF (nd).

Not all licensed occupations are covered by AMR and there are often exemptions for high-risk occupations. Exemptions are not uniform across states although commonly exempt occupations include teachers and tradespeople such as specific categories of plumbers or electricians (Master Electricians Australia, sub. 88, p. 2; Plumbing Industry Climate Action Centre, sub. 17, p. 9; Queensland College of Teachers, sub. 26, p. 2; Teacher Registration Board of the Northern Territory, sub. 21, p. 4).

There are often concerns over the quality of training provided by private VET providers (PC 2015, pp. 137–138) and there is potential for state regulators to exclude occupations from AMR on these grounds.

Differences in the scope of licensed work across jurisdictions often cause licences to be granted under (non-automatic) mutual recognition with exemptions on some of the tasks able to be performed. These licences are in turn often made exempt from AMR because of the difference in scope. Additionally, some occupations are only licensed in some jurisdictions and thus jurisdictions are often unable to grant licences to interstate workers for these occupations under mutual recognition, or allow interstate workers to operate under AMR. The Air Conditioning and Mechanical Contractor Association of Australia (sub. 63, p. 12) said:

> A prominent example is New South Wales, which introduced a distinct Medical Gas plumbing licence in 2023 and is now consulting on a dedicated Duct Installer class. Because other jurisdictions have yet

> to establish matching categories — or define equivalent scopes — each new class triggers a further exemption notice under AMR, shrinking the scheme's practical coverage.

East Coast Electricians scheme

Established in 2014, the East Coast Electricians scheme provides workers with similar benefits to AMR, but only applies to electricians in New South Wales, Victoria and Queensland and the Australian Capital Territory, albeit with some exceptions. Contractor electricians are generally exempt from the scheme except for some licence categories in New South Wales, and electricians from other states are unable to work in the Australian Capital Territory under this scheme (Building Commission NSW 2024). In all participating states, except Victoria, the scheme differs from the AMR scheme as there is no requirement to notify the local regulator to commence work (PC 2015).

Labour mobility remains restricted under AMR

The AMR scheme has reduced some barriers to interstate labour mobility by removing the requirement to apply for a new licence under mutual recognition, which may involve delays and the payment of additional fees. The Business Council of Australia (sub. 53, p. 3), Chamber of Commerce and Industry of Western Australia (sub. 85, p. 2), Housing Industry Association (sub. 78, p. 5) and Master Builders Australia (sub. 100, p. 7) all indicated that the AMR scheme has improved interstate labour mobility. The exclusion of certain occupations and Queensland from the AMR scheme, however, hampers its ability to fully realise the benefits of a unified labour market. In their submission to the 2021 consultation process for implementing AMR, the Minerals Council of Australia (2021) voiced concerns about the potential for regulators to exempt occupations that may not pose sufficient risk to workers or consumers to warrant exemption, although they noted that the scheme did have some safeguards against this.

It appears that the exemption safeguards have not been sufficient. Several submissions, including the Business Council of Australia (sub. 53, p. 3), said that, despite the introduction of AMR, there remain barriers to interstate labour mobility and exemptions exacerbate this.

> Many occupations — including electricians and plumbers — are exempt from AMR in several states, and Queensland does not participate at all, undermining the scheme's national impact.
>
> Exemptions, inconsistent licensing standards, and varying insurance and regulatory requirements across states create a fragmented and burdensome system. Employers must navigate multiple regimes, while workers face duplicated requirements, added costs, and delays — even when already qualified. This patchwork limits the efficient deployment of skilled workers, particularly during shortages or emergency responses.

The Australian Council of Trade Unions (sub. 51, p. 3) said:

> Most states have specific AMR requirements. These requirements can include sub-occupations which are exempt from the scheme, rules differences state to state and other requirements. Additionally, due to the jurisdictional licence differences, not all states are participating in the AMR scheme. This has meant that a separate scheme, called Mutual Recognition, has needed to keep functioning in order to cover states and occupations not covered by AMR.

Participants also voiced concerns that the AMR scheme relied on workers retaining registration in their home jurisdiction, defined as the jurisdiction where the worker had their principal residence or place of work. The Electrical Trades Union of Australia (sub. 56, p. 7) said that the current definition of home state:

> requires that a worker apply for registration of a licence in the new jurisdiction if their work in the new jurisdiction is not short-term and would result in a relocation of their principal place of residence or work to the new jurisdiction. For example, where a worker moves from NSW to Victoria for 6 months to work on a project, the principal residence of that worker may be taken to have changed, and the worker required to apply for registration and/or a license in Victoria to continue working in their trade.

This is a particular concern for workers who can provide their services remotely and in multiple states. Consult Australia (sub. 4, p. 3) said:

> This definition [of home state] is too restrictive and does not allow sufficient flexibility in the current environment when it comes to professional engineering registration. If automatic deemed registration worked effectively, the jurisdiction where the person lives or works would not be relevant so long as they hold a registration that can be recognised.
>
> The services provided by professional engineers can be provided remotely … There are many professional engineers providing services in Australia who hold a registration that is not for their 'home State'.

If the definition of home state were amended to allow workers to take part in the AMR scheme using a licence granted in a jurisdiction other than their home jurisdiction, 'it would allow individuals registered in any Australian jurisdiction to benefit' from the AMR scheme (Consult Australia, sub. 4, p. 4), even if they provide services remotely.

Effective regulatory oversight is challenging under AMR

Having separate regulators for each state (as is the case under AMR) creates compliance issues as it can be difficult to consistently implement and communicate disciplinary actions, such as a breach of licence conditions leading to a revocation of a licence. The Electrical Trades Union (ETU) (sub. 141, p. 3) said that:

> Under the current AMR scheme, if a person holds multiple licences, and breaches a licence in one jurisdiction, then this breach will only impact at most one of those licences. In other words, under the current AMR regime, it is possible that someone holding licences in multiple states could lose a licence in one state, while retaining their licence in (an)other state(s).

As indicated by SafeWork NSW (sub. 94, p. 4), work health and safety regulators lack the ability to enforce or direct another regulator to enforce disciplinary actions against a licence holder who holds a licence issued in another jurisdiction. Energy Skills Australia (sub. 13, p. 5) stated the inconsistent enforcement of compliance requirements is a weakness of AMR and suggested that national licensing would allow for a unified approach to compliance enforcement. Safe Work Australia (sub. 9, p. 1) said:

> A national occupational licencing scheme for other types of skilled work is likely to improve [work health and safety] across Australia by creating a consistent, nationally standardised system for assessing and verifying worker competency.

In their submission to the 2021 consultation process for implementing AMR, the Queensland Electrical Safety Commissioner (2021) raised concerns over the ability to undertake disciplinary actions against workers who worked in Queensland under AMR but held an interstate licence. This sentiment was echoed by the ETU (sub. 56, p. 11).

There is often a lack of information for interstate workers who make use of the AMR scheme on the differences in state licensing requirements, including restrictions on the types of activities permitted by their licence. The ETU (sub. 56, p. 8) said:

The AMR scheme does nothing to bridge gaps in workers' understanding of the scope of the licence in different jurisdictions, leaving the worker at professional risk and introducing regulatory risks for the worker, principal contractor and end customer.

National licensing

There have been previous attempts at creating national licensing systems for specific occupations that would harmonise requirements across jurisdictions and allow workers to operate in any Australian jurisdiction with a single licence. In 2008, state and territory governments agreed to nationally license various health professions that were previously required to hold jurisdiction-specific licences as part of the National Registration and Accreditation Scheme (NRAS) (COAG 2008). Licences under the NRAS are administered nationally and have the same requirements across jurisdictions to allow licence holders to operate across Australia. Over 90 registration boards for the professions included in the scheme were consolidated into 14 national boards (AHMAC 2018). Other health professions, such as paramedicine, have continued to be added to the scheme since its inception. Under the NRAS, some states operate as co-regulatory jurisdictions where state boards are responsible for handling complaints and reporting outcomes to the relevant national board, although the national board still sets the required standards, manages registration, and works with the relevant accreditation authority to set the requirements for approved programs of study (AHMAC 2018).

In 2009, state and territory governments agreed to license various occupations as part of the National Occupational Licensing Scheme (NOLS), including: air conditioning and refrigeration mechanics; electricians; plumbers and gasfitters; property agents; and drivers. NOLS was implemented using a national delegated agency model, whereby a single national body would develop policy and administer the licensing system by establishing procedures and determining licence types and eligibility requirements. All existing regulators were retained and were delegated to follow the nationally set procedures to process licensing applications. Record keeping, the administration of fees and the enforcement of conduct requirements remained the responsibility of local regulators (Tyson 2016). This created confusion about the roles of various stakeholders and made consultation difficult. Jurisdictions also found agreeing on uniform standards for each occupation to be costly and ultimately unworkable. This approach was unsuccessful, and in 2013 states and territories decided to pursue alternate options, spelling the end of NOLS (PC 2015, p. 35).

A national licensing system differs from the current state-based licensing systems in three key ways.

First, licences under a national licensing scheme are agnostic as to which jurisdiction licence holders operate in. For example, as part of the NRAS, optometrists must register with the Optometry Board of Australia in to practise and, once they have done so, are able to practise in any jurisdiction in Australia (AHPRA 2020). This is similar to the goal of AMR, which reduces as much as possible the compliance costs for workers to operate in different jurisdictions while maintaining state-specific licensing.

Second, national licensing requires a nationally agreed set of standards, instead of jurisdiction-specific standards. Harmonising standards could improve workers' understanding of their scope, and compliance. However, deciding on nationally uniform standards has proved difficult during past national licensing attempts. Additionally, there is a risk that the agreed uniform standard is more restrictive than the current standard for some jurisdictions. This would counteract some of the benefits of increased labour mobility arising from national licensing by reducing competition from new entrants to the labour market and reducing the size of the labour pool, which would reduce productivity growth.

Third, a national registration system would be required to replace the state-based registration system. Not only is a state-based registration system unnecessarily duplicative, it also creates the oversight challenges described above. Increased communication between jurisdictions as part of a national registry can allow for

better prosecution of offenders who move between states to continue practising their profession. The Office of the Cross Border Commissioner of South Australia (sub. 136, p. 2) said:

> There are concerns regarding the traceability of licence holders when individuals move interstate. This issue is particularly critical within the care economy, where there is rightly a heightened and justified focus on the risks to the health and safety of our most vulnerable people. … it is this concern within the care sector that should be prioritised under a nationally coordinated approach to licensing

C.3 Proposed national licensing for high-risk occupations

Priority occupations

Mutual recognition schemes aim to alleviate the barriers to interstate labour mobility imposed by the fractured nature of occupational licensing in Australia. Mutual recognition schemes fail where there is a high risk to safety as this is often used as justification for exemption from these schemes. A national licensing scheme can mitigate this through the creation of a nationally uniform set of standards and national registration which allows for uniformly applied disciplinary actions. For personal services that operate as credence goods where the quality of service can be difficult to verify before or even after a service has been provided (box C.2), consumers rely on occupational licensing as a signal of quality where markets fail to adequately resolve information asymmetries (PC 2023, p. 60). For these reasons, a national licensing scheme is likely most appropriate for occupations that have high risks to safety and also provide credence goods.

Box C.2 – Credence goods and services

Goods and services can be classified as belonging to three main categories: search, experience and credence.

Search goods are goods for which the benefit to the consumer from purchasing the good can be ascertained in the search process before it is purchased. For example, a dress can be tried on and the materials used in its construction can be determined by the consumer prior to purchase.

Experience goods are goods for which it is not possible to fully ascertain their quality before they are purchased, but once they have been purchased, the benefit they provide to the consumer is easily determined. For example, it is not possible to know the taste and texture of a particular can of tuna before it is purchased, but this information becomes apparent to the buyer once they consume it.

For credence goods, the benefit to the consumer is not revealed before or even after the purchase. Instead, an assessment of their quality requires additional and costly information. This information asymmetry can be resolved by government intervention such as licensing, which communicates to the consumer that a good provided will be of sufficient quality to meet the requirements of the licence. Non-cosmetic surgery can be thought of as an example of a credence service, as a consumer is not able to determine its efficacy themselves and must rely on the advice of a licensed medical professional to know the benefit of the procedure.

Box C.2 – Credence goods and services

Goods may have characteristics of all three categories, and some qualities may be determined at different stages in the purchase process. Some goods, such as automotive repairs, may have qualities that are able to be determined through use, however they may only be revealed after a significant period has elapsed.

Source: Darby and Karni (1973, pp. 68–69).

Table C.2 shows examples of licensed occupations which can be classified as posing a high risk to workers or consumers.

To classify occupations as posing high risk to workers, the level of risk must be quantified and compared to a threshold that determines whether that level of risk is high or low. Using data on work-related fatalities and workers' compensation claims provided to the PC by Safe Work Australia, the cost of unmitigated risk per worker was determined for each licensed occupation and this was compared to the average for all occupations, both licensed and unlicensed. This threshold is a proxy for the level of occupational risk that is generally acceptable to society. Licensed occupations with a greater than average cost of unmitigated risk per worker were deemed as posing high risks to workers.

To determine the cost of unmitigated risk per worker, workers' compensation claim rate per worker was used to calculate the frequency of work-related injuries while the median claim amount was used a measure of the severity of these claims. These values multiplied together approximate the total cost of unmitigated risks resulting in workers' compensation. The median claim amounts for each occupation do not include any payments due to fatalities and do not include work-related injuries or illnesses that do not result in compensation. In the 2021-22 financial year, 31% of workers who worked in the previous 12 months and experienced a work-related injury or illness received workers' compensation (ABS 2023).

To account for the cost of fatalities, the work-related fatality rate was used to determine the frequency of fatalities by occupation, and the value of a statistical life was used to quantify the severity of a fatality. The value of a statistical life estimates the value society places on reducing enough risk to prevent one fatality and has been estimated at $5.7 million in 2024 dollars (Office of Impact Analysis 2024). This multiplied by the fatality rate per worker for each licensed occupation gives the total cost of unmitigated risks resulting in fatalities.

These two measures were added together to determine a total cost per occupation. As there is significant variation over time in observed safety outcomes, the average cost from 2008-09 to 2022-23 was used (claims values are only available until 2021-22).

This method is imperfect as it is based on observed safety outcomes and not inherent risk. An inherently risky occupation is likely to have licensing and other regulatory requirements specific to that occupation which would mitigate risk and so the risk as determined by observed safety outcomes is suppressed. This difficulty in assessing risk for individual occupations often leads to anecdotal evidence of risk being used as justification for an expansion of licensing regimes (Senate Red Tape Committee 2018).

Occupations that produce credence goods were defined as presenting a high risk to consumers. However, some occupations were excluded if the good they produce does not have the potential to cause severe harm to consumers if it is not of sufficient quality. For example, sports coaching can be considered a credence good as it may be difficult for a consumer to evaluate how much the coaching they received helped them improve or if an alternative form of coaching may have been more beneficial, but the consequence of receiving ineffectual coaching is low. Occupations that produce goods that have a mixture of credence and experience qualities were also only included if they had the potential to cause severe harm to consumers.

Table C.2 – Examples of high-risk occupations subject to licensing requirements

	Low risk to consumers	High risk to consumers
High risk to workers	• Drivers (such as truck, bus, taxi) • Miners • Fire fighters	• Trades workers • Childcare workers • Motor mechanics
Low risk to workers	• Engineers • Service managers • Architects	• Teachers • Accountants • Solicitors

Licensed occupations that pose a high risk to consumers employ more people than licensed occupations that pose a high risk to workers (table C.3). There are more occupations in the high-risk-to-workers category, which may reflect these occupations generally being more specialised.

Table C.3 – Employment in high risk occupations[a]

As a subset of licensed occupations

	Number of occupations	Employment
High risk to workers, high risk to consumers	53	728,500
High risk to workers, low risk to consumers	114	841,010
Low risk to workers, high risk to consumers	61	1,339,820
Low risk to workers, low risk to consumers	53	348,630
Total	**281**	**3,257,960**

a. Excluding healthcare professionals as they are already nationally licensed and religious ministers as licensing is unlikely to resolve any information issues.

Source: PC estimates based on JSA (2025) and unpublished data from the Work-related Traumatic Injury Fatalities Database and National Data Set for Compensation-based Statistics provided to the PC by Safe Work Australia.

Further work is required to understand which occupations would be optimal for occupational licensing either through a national licensing model or through mutual recognition at a more granular level.

Moving to a national licensing scheme may initially increase the costs for workers operating in only one jurisdiction. A national licensing scheme may be more applicable for occupations with high compliance costs arising from many workers operating interjurisdictionally. That said, compliance costs to workers are already very low for occupations covered by AMR, as under AMR there is generally only a requirement to give notice to the jurisdiction (Finance nd, p. 23).

C.4 Are current arrangements affecting labour mobility?

Attempts have been made at overcoming the difference in licensing requirements, either through harmonising requirements as part of a national licensing system, or through jurisdictions recognising licences granted by other jurisdictions as part of a mutual recognition arrangement. The key aim from a productivity angle is to ease the barriers for licensed workers who operate or would like to operate interstate, although there are other impacts such as the more consistent application of disciplinary actions across state borders.

Past reviews have found barriers to labour mobility (and gains from reform)

Despite attempts to improve interstate labour mobility through mutual recognition and national licensing, jurisdictional differences still present barriers to interstate labour mobility (box C.3).

Previous PC reviews (2009, 2015) of mutual recognition arrangements found that the mutual recognition of licences had helped to alleviate labour shortages and assist interstate labour mobility. In a submission to the 2009 review – which was conducted before the full implementation of the NRAS – the Western Australian Department of Health (2008) stated that previous mutual recognition arrangements had allowed for the effective recruitment of radiologists, occupational therapists, pharmacists, physiotherapists, podiatrists and psychologists from other jurisdictions, and that this had been beneficial in alleviating labour shortages for these occupations.

There are other barriers to labour mobility than occupational licensing. The PC's (2015) review of mutual recognition arrangements found that mutual recognition improved interstate labour mobility, but this could be hampered by other regulatory requirements. For example, practitioners may be required to establish an office, set up a trust fund for receiving payment, or develop a complaints process when moving to a new jurisdiction. These 'manner of carrying on' requirements can also include stipulations as to how, or in what environment, a service may be provided, in addition to licensing that restricts who can provide the service.

The Queensland Competition Authority (2013, p. 7) suggested that 'manner of carrying on' requirements were likely to be a greater impediment to geographic labour mobility than occupational licensing requirements. As noted by Master Electricians Australia (sub. 116, pp. 11–12) and Water Services Association of Australia (sub. 125, p. 5), a lack of recognition of both interstate certifications and contractor licences restrict interstate labour mobility. These have the potential to be made more interoperable between jurisdictions as they both generally do not benefit from arrangements like mutual recognition and thus reforms in these areas may have greater potential benefit than reforms to occupational licensing.

Despite the introduction of the AMR scheme, differences in other regulatory requirements continue to reduce interstate labour mobility. The Housing Industry Association (sub. 78, p. 6) indicated that these requirements limit the effectiveness of mutual recognition arrangements. The Air Conditioning and Mechanical Contractor Association of Australia (sub. 63, p. 15) said:

> Even where AMR is nominally available, divergent [continuing professional development] rules, insurance thresholds and title protection laws oblige engineers to secure and maintain separate registrations in each jurisdiction where they sign off on work.

The Office of the Cross Border Commissioner of South Australia, along with its counterparts in New South Wales, Queensland and Victoria (sub. 104, p. 2) said:

> Though a state or territory may be a participating jurisdiction of the [AMR] scheme, conditions can be attached to licences identified under the scheme requiring already licensed professionals to undertake additional skills and training to meet requirements of the secondary jurisdiction in which they intend or seeking to work in.

Box C.3 – State borders and labour mobility

If there were no legislative differences between jurisdictions, it would be expected that crossing a state or territory border would not impact the decision for a worker to move. The PC (2014) previously estimated that this is not the case – workers favour migration within the same state over interstate migration, even when other factors such as the transaction costs of the move, difference in economic and demographic characteristics and difference in amenities or quality of life are considered. The 2014 study econometrically modelled moves between regional labour markets and found that the largest single impact on the number of individuals who moved was whether the source and destination region were in the same state. Imposing an interstate border was found to reduce the number of people moving within the past five years by 77%. While occupational licensing does not represent the entirety of interstate legislative differences, this estimate gives an upper bound of the impact of jurisdictional regulatory differences on interstate labour mobility.

Analysis in the United States found that moves greater than 50 miles and between states for occupations where all licensing requirements are state specific were 7% lower than for occupations where some licensing requirements were administered federally, such as the requirement to pass a national exam (Johnson and Kleiner 2020, p. 370).

C.5 Quantitative impacts

An occupational licensing system that improves interstate labour mobility would be expected to increase productivity and thus raise GDP (box C.4), as well as reduce consumer prices by lowering the wage premiums for licensed occupations. The PC has previously modelled the impact of reform in this space, generally finding a small positive impact on GDP, and a reduction in prices.

Box C.4 – Occupational licensing and productivity

Occupational licensing requirements hinder productivity growth, through restricting the labour pool and impeding the allocation of labour towards more productive firms. This reduction in productivity is experienced both within individual firms but also between firms in an industry. The compliance costs of licensing requirements act as barriers to entry which lower the competition from new market entrants. Skilled workers who are licensed in one jurisdiction may be disincentivised from seeking interstate employment, and this reduces the incentive for those already employed to compete by innovating and improving their productivity. The reduction in labour mobility also reduces productivity between firms as more productive firms have a reduced ability to attract highly productive workers from other jurisdictions (PC 2023, 2024).

While higher productivity firms are expected to grow at faster rates than lower productivity firms, barriers to competition such as licensing requirements can reduce the difference in growth rates between firms of different productivity levels. Bowman et al. (2024, pp. 26–27) find that high productivity firms can be expected to grow 10 percentage points faster than low productivity firms in industries with no occupational licensing, where high and low productivity is defined as one standard deviation above or

Box C.4 – Occupational licensing and productivity

below the industry mean. When occupational licensing stringency is increased by 10 percentage points, this difference in productivity growth reduces to 9 percentage points. International evidence has found that occupational entry requirements, including licensing, impede economic performance without necessarily improving quality or safety (PC 2025, p. 55)

For industries with highly seasonal employment trends, such as tourism, increased labour mobility could provide benefits to overall output in addition to improvements to productivity arising from a more efficient allocation of labour. Delays in licensing approvals can make it difficult for workers to seek interstate employment in temporary seasonal positions, shrinking the available labour pool.

Previous modelling results

The PC has previously investigated the effects of licensing reform on the wider economy. In the PC's review of mutual recognition schemes (2009, p. 73), Computable General Equilibrium (CGE) modelling was used to estimate the effects of greater interstate labour mobility in the context of a 10% shock to resource export prices. Two scenarios were considered, one where labour in licensed occupations was completely immobile between jurisdictions and, one where all labour was perfectly mobile which resulted in a GDP increase of 0.3% as compared to the former scenario.

As part of the attempt at national licensing under the NOLS, a Decision Regulatory Impact Statement (RIS) was produced which estimated the benefits of moving to a national licensing system for electrical trades. This approach built on PC (2009) and assumed that national licensing would lead to 10% of the full labour mobility benefit estimated by the PC (2009). A cost benefit analysis which was undertaken as part of this RIS estimated the ongoing benefit at $62 million per year with an annualised transition cost of $31 million. CGE modelling was also conducted as part of this RIS and it was estimated that moving to a national licence for electricians would increase GDP by $22 million (COAG National Licensing Steering Committee 2013). This estimate was produced before the introduction of the AMR scheme. Given that AMR is likely to have already increased interstate labour mobility, a national licensing scheme would have a smaller incremental impact if introduced after AMR.

In the PC's *Advancing prosperity* report (2023, p. 181), CGE modelling was used to estimate the effect of reducing licensing in the industries with the most restrictive licensing requirements. This approach built on European research by Bambalaite et al. (2020), which estimated that a 17 percentage point reduction in the stringency of occupational licensing requirements improved labour productivity by 1.6 percentage points for the average firm. Since the PC used a sectoral CGE model, a 0.8% increase in productivity was assumed for each of the five affected industries, as not all occupations in these industries require a licence. The effects on real Gross Domestic Product (GDP) and real Gross National Income were estimated as increases of 0.3% and 0.4% respectively. The price of the goods and services produced by the affected industries fell with more labour-intensive industries experiencing the greatest price reduction. The reduced prices induced greater consumption and output across the economy grew. The aggregate increase in household welfare was estimated at $3.3 billion in 2018-19 dollars.

Most recently, as part of the PC's *National Competition Policy: modelling proposed reforms* (2024, pp. 133–135), reducing the stringency of licensing requirements was modelled using the PC's national CGE model (Zhang 2025) similarly to the 2023 report, as well as the Victoria University regional CGE model (Adams et al. 2015). The same

0.8% increase in productivity for the five affected industries was assumed. The model predicted a real GDP increase of 0.4% from that assumption, as well as a decrease in the Consumer Price Index of 0.2%.[43]

The PC's 2023 and 2024 modelling results may be more applicable to the reforms being considered in the PC's 'Building a skilled and adaptable workforce' inquiry as they involve a reduction of licensing stringency and a removal of unnecessary licences, rather than an improvement to interstate labour mobility.

How does productivity increase following national licensing?

Workers choose to move between states when the benefits of moving, such as higher wages or greater quality of life, outweigh the transaction costs. Wages differ between states due to differences in productivity, and the existence of transaction costs prevents these wage differentials from being equalised through the movement of workers.

Among other things, national licensing aims to reduce these transaction costs and allow workers to move more freely between states. If the transaction costs of moving are reduced, it is likely that workers will move to more productive states which offer higher wages. This will lead to workers competing on wages until the wage differential between states is not large enough to justify moving given the remaining transaction costs. As the labour force reallocates from less productive states to more productive states, aggregate productivity improves.

This competition for wages is only possible in the long run – initially, the first individuals who move states will be able to take advantage of higher wages in their destination state that have not yet been able to adjust to the influx of new interstate migrants. Additionally, labour may be more mobile in the long run as more workers are able adjust to the decrease in transaction costs, which would further decrease the size of the individual productivity improvement experienced by each worker who moved. Therefore, any short-term estimate of the effect will overestimate the potential benefit and will not reflect the true productivity improvement as indicated by the long-run equilibrium wage.

To estimate the specific productivity impact of introducing national licensing, we considered the effect of the introduction of national licensing for paramedics on their wages. In 2018, paramedics stopped being licenced at the state level, where they operated under mutual recognition, and were included in the NRAS (AHPRA 2020). This allows for a natural experiment using the Longitudinal Linked Employer-Employee Dataset (L-LEED) (ABS 2025) to isolate the impact of moving from mutual recognition to national licensing in an Australian setting. The L-LEED dataset contains all individuals who completed tax returns from the 2015-16 to 2021-22 financial years, the jobs these individuals had and the businesses that employed them. The interim report identified a lack of empirical data for Australia on this issue, making this a first direct empirical estimate of this effect for a labour force in Australia.

To test whether the introduction of national licensing for paramedics led to a productivity effect, a difference-in-difference model with individual and industry fixed effects was applied. The wages of paramedics and other occupations were compared before and after the introduction of national licensing for paramedics to estimate the treatment effect of moving to national licensing for paramedics in each state on wages. Two key assumptions must be made to allow this treatment effect to determine the resulting productivity improvement.

[43] This differs from the 2023 estimate purely due to changes to the model rather than any differences in input assumptions. Revenues for the Australian Government were estimated to increase by $1,225 million but decrease by $144 million for state and territory governments. The decrease in revenue is due to the nature of the national CGE model used and, when using the Victoria University model which has detailed data on state labour markets and a more granular occupations list, revenues increased across state and territory governments.

The first is that there is no change in the quantity of labour in the paramedicine profession nationally. It is expected that the change to national licensing would allow for the existing work force to move between states more easily – some state workforces shrink while others grow. The assumption is that the labour force is fixed, and no new workers would become paramedics as a result of this reform. This is potentially a strong assumption in the long term, but in the short term, the entry requirements for paramedics mean that a person who wishes to become a paramedic to take advantage of the increase in interstate labour mobility would not be able to do so.

The second assumption is that no capital deepening nationally occurs due to this reform. Again, as workers move between states, the amount of capital in each state changes accordingly and we assume that the amount of capital available to each worker is constant, and so the ratio of capital to labour remains the same nationally. As paramedicine is a relatively labour-intensive occupation and this reform targets workers' mobility specifically, this assumption seems reasonable in the short and long term.

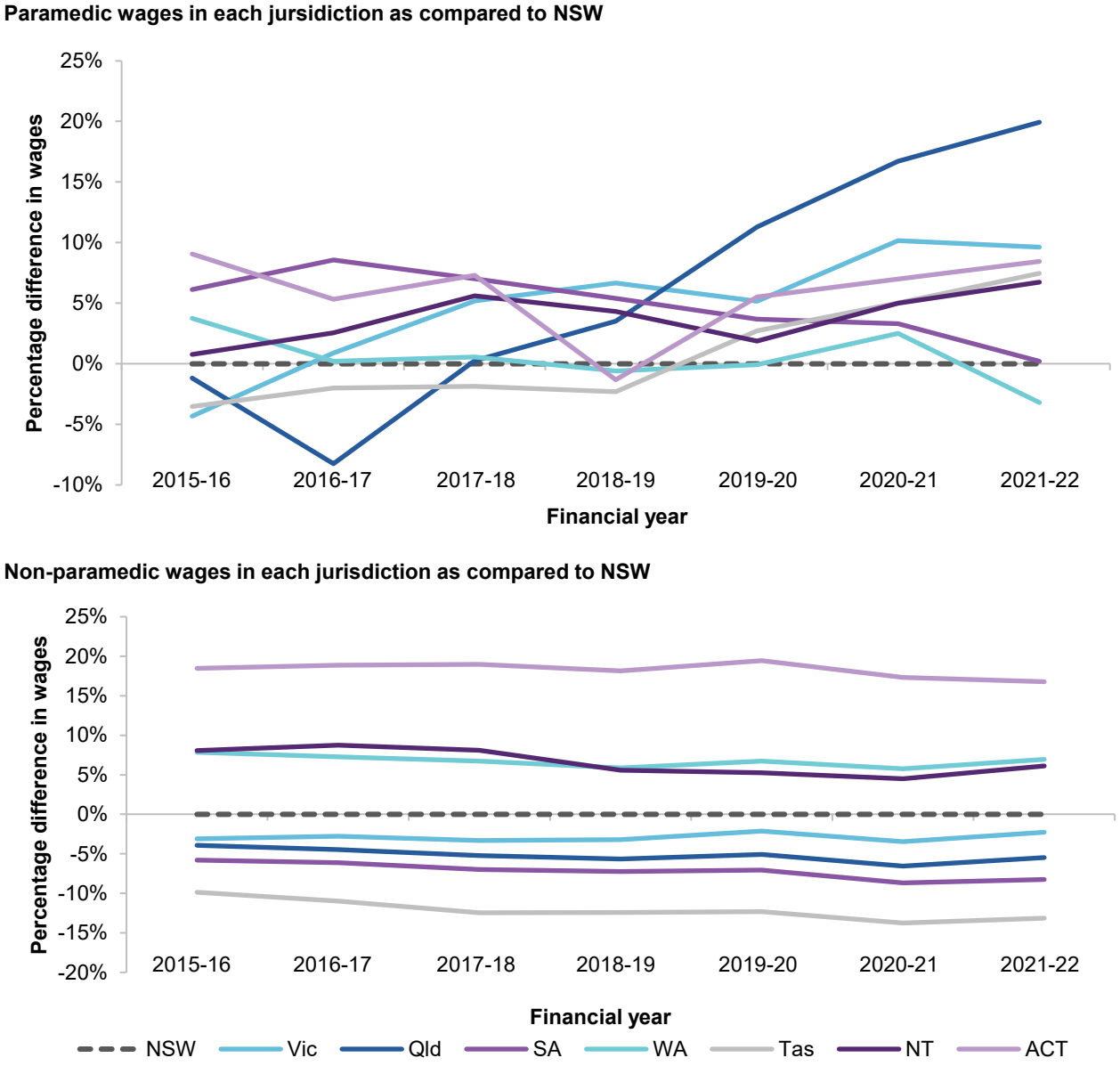
If these assumptions hold, an increase in the total output of paramedics must be purely due to an improvement in productivity. Therefore, aggregating the effect on wages in each state gives the increase in productivity resulting from national licensing.

Assuming the effect of introducing national licensing for paramedics would be similar to the effect for other occupations, this increase in productivity can be applied to the high-risk occupations in the scope of this reform. High-risk occupations that are already included in AMR may experience a smaller productivity effect as there are less transaction costs for moving interstate when compared to occupations that are only covered by mutual recognition (as was paramedicine). Capital-intensive occupations which exhibit greater wage differentials between states may experience a proportionally larger productivity effect from an increase in interstate labour mobility.

Estimating the direct effect

The dependent variable considered is the natural logarithm of an individual's total income from employment. This includes wages but also any income earned as a sole proprietor or contractor, while excluding any income from non-labour sources such as dividends or transfer payments. When compared to all other occupations, the wage differentials between states for paramedics are generally larger in states with larger populations. Figure C.1 provides an illustrative comparison of wages between NSW and other jurisdictions. As paramedicine is a labour-intensive occupation, wage differentials may be smaller than for capital-intensive occupations which would exhibit greater wage (and thus productivity) differentials due to wages reflecting differences in capital depth between states. State wage differentials are also more variable for paramedics over time, reflecting the smaller sample size.

Figure C.1 – State wage differentials for paramedics and other occupations[a]



a. Wage differentials for other territories have been omitted due to low counts.

Source: PC estimates based on (ABS 2025).

The estimation controlled for factors such as an individual's age, whether they are employed in the public or private sector and whether they work in a licensed occupation as these are common determinants of income. Additionally, whether an individual had a spouse for more than half a financial year and whether an individual had any children were also controlled for as these can be seen as a proxy of non-pecuniary factors that may increase the transaction costs of moving states. The state that a person lived in was also included as a categorical variable to control for differences in economic conditions which affect income, such as inflation, between states. Individual fixed effects were included to control for time invariant differences between individuals, as well as fixed effects for industries (table C.4).

Table C.4 – Results of introducing national licensing for paramedics[a,b,c,d]

	Effect on natural logarithm of total employment income
Treatment effect	-0.0055
	(0.0034)
Controls	
Paramedic	0.3739***
	(0.0100)
Policy period (2018-19 or later)	-0.0294***
	(0.0003)
Public sector	0.0588***
	(0.0013)
Age	0.0605***
	(0.0009)
Licenced occupation	0.1623***
	(0.0009)
Spouse	0.0743***
	(0.0005)
Any children	-0.0421***
	(0.0003)
State controls	
Victoria	0.0040***
	(0.0009)
Queensland	-0.0285***
	(0.0009)
South Australia	-0.0327***
	(0.0014)
Western Australia	-0.0097***
	(0.0012)
Tasmania	-0.0495***
	(0.0024)
Northern Territory	0.0990***
	(0.0025)
Australian Capital Territory	0.0736***
	(0.0021)
Other Territories	-0.0696**
	(0.0258)
Adjusted R^2	**0.77849**
Within R^2	**0.04141**

a. 48,842,350 observations **b.** Fixed effects for individuals and industries **c.** Standard errors in parentheses. *** $p < .001$, ** $p < .01$. Standard errors clustered by individual **d.** New South Wales used as base category for state.

Source: PC estimates based on L-LEED (ABS 2025).

When considering aggregate paramedic wages, the effect of introducing national licensing on wages is not significantly different from zero, reflecting the minimal impact on the number of paramedics moving interstate

following the reform. This is consistent with recent research that looked at the expansion of license recognition for physicians in the United States, and found it had no significant effect on interstate migration (Oh and Kleiner 2025, p. 40).

Limiting the analysis to paramedics who moved between states shows a 12% pay increase (attachment C.1), or $12,479 more, compared to a median wage of $103,990. However, this figure likely overstates the long-term impact on productivity and wages because it ignores future competition as more workers relocate. If few paramedics move, the wage increases they experience simply reflect existing state wage differences. For instance, with wage differentials between NSW and the next two most populous states generally rising over the period considered (from roughly even to 10% for Victoria and 20% for Queensland) (figure C.1), an observed wage increase of 12% is likely driven by these rises and suggests minimal competitive wage effects.

Additional considerations

Since some licensed occupations can provide services remotely, national licensing would affect more workers than those who move interstate for work. There are other impacts, beyond a change in productivity due to increased labour mobility such as changes to administrative costs, which are not captured in the above modelling.

For national licensing to be preferable to mutual recognition or AMR, the ongoing compliance and administrative cost savings must be greater than the initial costs of transition (as there does not appear to be a sufficient effect on productivity between national licensing and mutual recognition or AMR).

An expansion of AMR to overcome occupations being exempt and/or a lack of communication of disciplinary actions should have much lower transitional costs than national licensing, but similar ongoing benefits and compliance costs, while having greater ongoing state government administrative costs.

While the impact on productivity and GDP may be minor, national licensing could improve compliance and reduce costs for licensed workers who already operate in multiple states and may be worth pursuing on those grounds. If the goal is to increase productivity for licensed workers, reforms such as those considered in the PC's National Competition Policy: modelling proposed reforms (2024) or Building a skilled and adaptable workforce (2025) inquiries are likely to have greater effect.

C.6 The way forward

Review Automatic Mutual Recognition

While there are issues with current arrangements, the PC has seen little evidence that they are impeding interstate labour mobility to the degree that workers are prevented from relocating states. Evidence from the United States has shown that licensing requirements are rarely the most significant factor considered by workers when relocating states (Cooke et al. 2022). Additionally, the decision to relocate states can often be a decision made by a family or household rather than an individual (Johnson and Kleiner 2020, p. 371). Rather than changing the amount of workers who move between states, improvements to interstate licence interoperability may simply reduce the cost for workers who already operate in multiple states or have decided to relocate based on other factors.

Our estimates do not suggest that a national licensing scheme will have strong productivity impacts relative to AMR. There is merit in reviewing the functioning of AMR as it currently operates, and any policies that may improve it, before proceeding with national licensing in a range of occupations. Submissions raised a number of challenges in the functioning of AMR. That said, our work pertains only to the productivity effects of a

national scheme. If a national scheme is needed for more effective regulatory oversight, for example in the oversight of care workers, there may still be benefits to introducing a national licence.

The *Intergovernmental Agreement on the Automatic Mutual Recognition of Occupational Registration* calls for an 'independent evaluation by a body such as the Australian Government Productivity Commission' (National Cabinet 2020, p. 5) – the Australian Government should refer this matter to the PC so that it can thoroughly consider the best policies to alleviate the issues with the current implementation of AMR.

Recommendation 4
The Australian Government should commission the scheduled independent evaluation of Automatic Mutual Recognition

The Australian Government (in consultation with state and territory governments) should instigate the agreed independent evaluation of the Automatic Mutual Recognition scheme.

In the meantime, state and territory governments should remove remaining exemptions to Automatic Mutual Recognition (or join the scheme if they have not already done so).

Consider licensing more broadly

Broader licensing reforms such as those considered in the *Building a skilled and adaptable workforce* (PC 2025) inquiry are likely to have greater impact than changes to AMR or a move to national licensing for certain occupations. Broader licensing reform including changes to the stringency of licensing requirements or the removal of unnecessary licences has the potential to increase economic output beyond the improvements to allocative efficiency gained by increasing interstate labour mobility. While an increase in interstate labour mobility may allow localised temporary labour shortages to be resolved more easily, it does not increase the national supply of labour in occupations with skills shortages, and thus reforms targeting the entry pathways for these occupations would be needed to address this.

On 5 September 2025, the Australian, state and territory treasurers affirmed their commitment to a 'national licence scheme for electrical tradespeople to remove unnecessary mobility barriers without reducing standards' as well as an intent to identify other trades where national licensing may be appropriate, particularly in construction and housing (Chalmers 2025). If national licensing is accompanied by harmonisation to a more stringent set of standards, the resulting reduction in productivity is unlikely to be alleviated by increased labour mobility.

Many of the benefits of harmonising licensing requirements between states come from standards being set at the level needed to manage risks effectively while not unnecessarily affecting labour mobility (or productivity). AMR reduces the need for harmonisation but may have fewer benefits and can introduce additional issues when enforcing disciplinary actions across borders.

Attachment C.1 – Results of introducing national licensing for paramedics[a,b,c,d]

Restricted to paramedics who moved states in the previous financial year

	Effect on natural logarithm of total employment income
Treatment effect	0.1142***
	(0.0194)
Controls	
Paramedic and moved states	0.0198**
	(0.0076)
Policy period (2018-19 or later)	-0.0294***
	(0.0003)
Public sector	0.0599***
	(0.0013)
Age	0.0605***
	(0.0009)
Licenced occupation	0.1646***
	(0.0009)
Spouse	0.0744***
	(0.0005)
Any children	-0.0421***
	(0.0003)
State controls	
Victoria	0.0040***
	(0.0009)
Queensland	-0.0286***
	(0.0009)
South Australia	-0.0328***
	(0.0014)
Western Australia	-0.0097***
	(0.0012)
Tasmania	-0.0495***
	(0.0024)
Northern Territory	0.0991***
	(0.0025)
Australian Capital Territory	0.0736***
	(0.0021)
Other Territories	-0.0694**
	(0.0258)
Adjusted R^2	**0.77847**
Within R^2	**0.04130**

a. 48,842,350 observations **b.** Fixed effects for individuals and industries **c.** Standard errors in parentheses. *** $p < .001$, ** $p < .01$. Standard errors clustered by individual **d.** New South Wales used as base category for state.

Source: PC estimates based on L-LEED (ABS 2025).

Abbreviations

AACA	Architects Accreditation Council of Australia
ABS	Australian Bureau of Statistics
ACL	Australian Consumer Law
ACCC	Australian Competition and Consumer Commission
ADR	Australian Design Rules
AHMAC	Australian Health Ministers' Advisory Council
AHPRA	Australian Health Practitioner Regulation Agency
AMR	Automatic Mutual Recognition
ANZSIC	Australian and New Zealand Standard Industrial Classification
ARA	Australian Retailers Association
ARENA	Australian Renewable Energy Agency
AS	Australian Standard
ASEM	Australian Sunscreen Exposure Model
ASIC	Australian Securities and Investment Commission
ABCB	Australian Building Codes Board
AVAS	Acoustic Vehicle Altering System
BITRE	Bureau of Infrastructure and Transport Research Economics
bn	billion
CCAA	Cement Concrete and Aggregates Australia
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
CFFR	Council on Federal Financial Relations
CGE	Computable General Equilibrium
COAG	Council of Australian Governments
CJR	Cross Jurisdictional Review Forum
Code of Good Practice	WTO Code of Good Practice for the Preparation, Adoption and Application of Standards
COVID-19	Coronavirus Disease 19
CPD	Continuing Professional Development
CPI	Consumer Price Index
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DFAT	Australian Government Department of Foreign Affairs and Trade

DIIS	Australian Government Department of Industry, Innovation and Science
DISR	Australian Government Department of Industry, Science and Resources
DITRDCSA	Australian Government Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts
EESS	Electrical Equipment Safety System
EITI	Extractive Industries Transparency Initiative
EU	European Union
ETU	Electrical Trades Union
FSANZ	Food Standards Australia New Zealand
FY	Financial year
GATS	WTO General Agreement on Trade in Services
GDP	Gross Domestic Product
GHG	Greenhouse gases
GlobalGAP	Global Good Agricultural Practices
GNA	Gross national absorption
GNI	Gross national income
HERE	Here Technologies
HZEV	Heavy Zero Emissions Vehicles
IEC	International Electrotechnical Commission
IFRA	International Fragrance Association
IFRS	International Financial Reporting Standards
ISO	International Organization for Standardization
ITU	International Telecommunications Union
JIS	Japanese Industrial Standard
JSA	Job Safety Analysis
KS	Korean Industrial Standard
m	million
LEED	Longitudinal Linked Employer-Employee Dataset
MCA	Minerals Council of Australia
MoU	Memorandum of Understanding
MRA	Mutual Recognition Agreement
NATA	National Association of Testing Authorities
NCC	National Construction Code
NCP	National Competition Policy
NEN	Royal Netherlands Standardisation Institute
NPV	Net present value

NZS	New Zealand Standard
NOLS	National Occupational Licensing Scheme
NRAS	National Registration and Accreditation Scheme for Health Practitioners
OECD	Organisation for Economic Co-operation and Development
PBO	Parliamentary Budget Office
PC	Productivity Commission
QCA	Queensland Competition Authority
PMC	Australian Government Department of the Prime Minister and Cabinet
RIS	Regulation Impact Statement
SCCS	European Scientific Committee on Consumer Safety
SPF	Sun Protection Factor
SPS Agreement	WTO Agreement on the Application of Sanitary and Phytosanitary Measures
TAFE	Technical and Further Education
TBT Agreement	WTO Agreement on Technical Barriers to Trade
TFP	Total factor productivity
TGA	Therapeutic Goods Administration
TTMRA	Trans-Tasman Mutual Recognition Act
UK	United Kingdom
UN	United Nations
US	United States of America
VET	Vocational Education and Training
VURM	Victorian University Regional Model
WHS	Work Health and Safety
WTO	World Trade Organization

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