



Amazon Australia Submission to Productivity Commission

'5 Pillars' Productivity Inquiries

13 June 2025

INTRODUCTION

Amazon Australia¹ welcomes the opportunity to respond to the Productivity Commission (PC) Inquiries on '5 pillars' of productivity. This submission addresses issues raised under Pillar 1 ('Creating a more dynamic and resilient economy'), Pillar 2 ('Building a skilled and adaptable workforce') and Pillar 3 ('Harnessing data and digital technology'). We are separately providing a submission to the PC's National Competition Policy analysis call for submissions on occupational licensing and international standards.

We note that the PC will publish interim reports under each of the pillars and we look forward to assisting the PC through submissions on those reports and discussions with Commissioners and staff.

Amazon Australia's mission is to serve customers better; we work backwards from what customers want and focus on providing choice, innovative products and value. Our unrelenting customer focus promotes competition in the sectors in which we operate, including the retail and IT sectors, and our innovations often result in follow-on innovations, more competition, and better customer outcomes. In both retail and IT, customers have many options and alternatives to choose from.

Since launching our cloud and retail businesses in Australia, Amazon Australia has sought to deliver the benefits of our world-class innovations and services to contribute to Australian productivity. We embrace competition and strongly believe that it is the primary force that drives economic growth for the benefit of consumers, working Australians and industry. We also believe that targeted and proportionate regulation can support competition by providing the basis for fair and efficient competition. To achieve that result, any reforms must deal with specific and identifiable harms, promote a level playing field for all businesses within relevant sectors, and promote growth and innovation across those sectors and drive productivity. In addressing the challenge of increasing productivity, the Treasurer noted in a speech last year:²

There is no more important structural problem in our economy than productivity. No higher priority for reform. No more important ingredient in the higher living standards we all seek. ...

As investment continues to pick-up and more than a million Australians in new jobs build their skills, we expect it will make a greater contribution to productivity growth over the medium to longer term. We can be confident about this but not complacent. That's why our reform agenda is laying the foundations for higher productivity growth into the future. Here our focus is the 3 components of economic efficiency.

To build greater technical efficiency so people are equipped to be as productive as they can be at work.

To lift allocative efficiency, so that talent and capital flows to where it is most productive.

¹ Amazon Commercial Services Pty Ltd (**Amazon AU Retail**) and Amazon Web Services Australia Pty Ltd (**AWS**) (together, **Amazon Australia**). Note: all links to online sources are as accessed at 6 June 2025.

² Treasurer's Address to the Australian Business Economists 'Building a new economy on 5 pillars of productivity', 13 November 2024, <https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/speeches/address-australian-business-economists>.



And to drive dynamic efficiency over time, accelerating the diffusion of new innovations and investing in our future strengths.

Similar sentiments were recently expressed by the UK Prime Minister:³

The key test for me on regulation...[i]s of course – growth. Is this going to make our economy more dynamic? Is this going to inhibit or unlock investment? Is it something that enables the builders not the blockers?

So it's time to upgrade the regulatory regime... Make it fit for the modern age... Harness every opportunity available to Britain. We will rip out the bureaucracy that blocks investment... We will march through the institutions... And we will make sure that every regulator in this country... Especially our economic and competition regulators... Takes growth as seriously as this room does.

Amazon Australia agrees that the keys to future productivity growth are enabling investment and innovation, particularly in areas with rapidly evolving technology. It is critical that regulation supports, not hinders, these developments.

These brief submissions provide some initial observations on the approach Amazon Australia believes the Government should take to economic regulation generally, as well as supporting examples of particular regulations and areas of policy.

Australia is facing a number of economic challenges, including cost-of-living concerns and slowing productivity. The Productivity Commission has raised concerns about Australia's productivity growth, while noting *'[s]ome evidence suggests Australia is falling behind in adopting data and digital technologies.'*⁴ Treasury's own report recognises that Australia's productivity growth, over the decade to 2020, was the slowest in 60 years and recommends *'increasing the adoption of new digital and advanced technologies'*.⁵

Australia has an opportunity to choose a path that best benefits Australia and its participation in a future global digital economy.

³ Prime Minister's speech to Investment Summit, 14 October 2024 (<https://www.gov.uk/government/speeches/pm-international-investment-summit-speech-14-october-2024>).

⁴ Productivity Commission, *National Competition Policy: modelling proposed reforms - Study report*, 1 November 2024, p. 27.

⁵ Commonwealth of Australia, *Working Future: The Australian Government's White Paper on Jobs and Opportunities*, September 2023, ch.4, <https://treasury.gov.au/sites/default/files/2023-09/p2023-447996-06-ch4.pdf>, at Section 4.1.1.



PILLAR 1: CREATING A MORE DYNAMIC AND RESILIENT ECONOMY - REDUCING THE IMPACT OF REGULATION ON BUSINESS DYNAMISM

Amazon Australia agrees with the PC's observation introducing the Pillar 1 Consultation Questions that 'reducing excessive or inappropriate regulation can unshackle business and enhance business dynamism and productivity.' We also agree that the aims of the inquiry should be to examine the principles applicable to and institutions responsible for implementing regulations to ensure businesses are able 'to devote less time and fewer resources to dealing with regulation, and to focus more on growth and innovation, while ensuring businesses can readily adapt to changing market conditions'.

1. Principles of good regulation

Many regulations have an economic impact, including where the principal policy objective is non-economic such as health or environmental regulations. However, regulations that are intended to govern economic activity directly raise a particular need for close consideration in the context of an economy based on a presumption of economic freedom and open competition such as Australia's. The effects of such regulation may be expressed as limited to particular conduct or a particular sector but very often create second order effects that result in far greater impacts than intended or foreseen.

We think it is important that the PC set out clear principles to guide policymakers in designing, implementing and reviewing regulation. There are many available lists of principles that offer guidance, which will be familiar to the PC. In our view, the five principles that are central and common to most of these guidelines are that regulations should be:

- **Necessary and proportionate:** regulations should respond to a demonstrated harm, should not extend further than required to address that harm and should only be implemented where existing regulations fail to address the harm.
- **Principles-based:** regulations should be a considered response to those harms, based on accepted norms and principles that respond to policy problems, not merely target particular technologies or forms of business that may be suspected of raising problems.
- **Outcomes-focused:** regulations should be designed with the end in mind and it should be possible for both the regulators and the regulated to identify what conduct or systems will be compliant.
- **Coordinated** with both domestic and international systems. As a baseline, regulations should not result in conflicting obligations but more generally, regulations must be considered as part of complex system, in which the results from any new regulation may interact with others to create effects not obvious from direct effects.
- **Monitored and reviewed:** as economic conditions change, other regulations are introduced and experience is gained, there is a constant need for policymakers to consider the ongoing relevance of regulations.

The final principle recognises that individual regulations must continue to satisfy the other principles over the life of the regulation, not only at the time of enactment.⁶ It is also critical to consider the two final principles are together, so that monitoring takes account of other regulations in force and that reviews take account of the **stock of regulation**. For that purpose, we consider the PC should recommend the Government introduce a system of stocktaking with regular short-form reports on the effectiveness of individual regulations against the criteria above.⁷

⁶ See generally, OECD, 'Reviewing the Stock of Regulation', https://www.oecd.org/en/publications/reviewing-the-stock-of-regulation_1a8f33bc-en.html and Confederation of British Industry: <https://www.cbi.org.uk/media/fhybmvpk/good-regulations-guide.pdf>

⁷ This is similar to recommendations included in the UK's HM Treasury policy paper, 'New approach to ensure regulators and regulation support growth', available at: <https://www.gov.uk/government/publications/a-new-approach-to-ensure-regulators-and-regulation-support-growth/new-approach-to-ensure-regulators-and-regulation-support-growth.html>



Finally, in the context of modern regulations, it is also important to heed the recent advice of the Secretary to the Treasury, Dr Kennedy:

‘... it will be important that, wherever possible, we leverage existing technology-neutral laws and regulations to protect consumers and address clear harms – this provides certainty which will support innovation and more rapid adoption.’

These principles are also consistent with those set out in the Australian Government’s Guideline on Regulatory Impact Analysis,⁸ which focus more on the process to be applied to make regulations.

2. Application to ‘digital’ competition regulation

The recent proposed digital-specific ‘ex-ante’ competition regime⁹ offers an illustration of some of the concerns that Amazon Australia (and other digital businesses) have with increasing and increasingly interventionist regulation. We consider there has not been a case made out that the isolated competition issues that were explored in the ACCC’s five-year-long Digital Platform Services Inquiry (DPSI) justify the blanket intervention proposed in the regime set out in the Treasury Ex-ante Consultation Paper. There are several reasons for this, discussed in the following section.

There is no global consensus that ex-ante regimes are the solution

As the International Center for Law & Economics (ICLE) has noted, the narrative of an international ‘consensus’ or trend towards ex-ante digital competition regulation is false, in fact ‘[T]he number of countries that adopted ex-ante rules pales in comparison to those that have not’.¹⁰ The two prominent examples of digital ex-ante laws, in the EU and UK, have taken very different approaches. The philosophy underlying the DMA is a one-size-fits-all approach to digital services. The DMCC rejects a one-size-fits-all approach and instead gives discretion to the regulator to determine what services to regulate and how.

By contrast, for example, Japan has taken a different data-driven and incremental approach to digital regulation, which is fundamentally different to both the EU and UK regimes. Essentially, Japan’s approach is to deal with specific concerns as seen in the following reforms. The Japanese Government’s Act on Improving Transparency and Fairness of Digital Platforms (2021) focuses on increasing transparency vs imposing new obligations (a **transparency regime**).¹¹ The transparency regime applies to online shopping marketplaces, app stores, and digital advertising, including media-integrated digital ad platforms and ad intermediary digital platforms. It takes a co-regulatory rather than ex-ante approach. Japan opted for co-regulation for several reasons: (i) implementing a monitoring and review system would not hinder innovation in rapidly evolving digital services; (ii) it was important for providers to make voluntary efforts to address concerns; and (iii) recognising the significant value in having providers explain and disclose information to governmental authorities and stakeholders.

In 2024, the Japanese Government conducted a sector review and identified that mobile software would benefit from specific regulations leading to the passage of the Act on Promotion of Competition for Specified Smartphone Software (**Smartphone Act**) in December 2024. The Smartphone Act applies DMA-like obligations to operators of the following types of software on smartphones: mobile operating systems, app stores, browsers, and search engines.

The Japanese approach of specifically and narrowly targeting the services where there is evidence of harms, and to incrementally add regulation, is seen to be functioning well and less likely to impact the broader economy. The experience of South Korea is similarly instructive. An initial proposal to

⁸ Australian Government Guide to Regulatory Impact Analysis (<https://oia.pmc.gov.au/sites/default/files/2021-06/australian-government-guide-to-regulatory-impact-analysis.pdf>). We note that the RIS

⁹ Treasury, ‘A new digital competition regime: Proposal paper’, December 2024 (<https://treasury.gov.au/consultation/c2024-547447>) (Treasury Ex-ante Consultation Paper)

¹⁰ <https://laweconcenter.org/resources/imaginary-consensus-as-a-legitimizing-philosophy-of-the-new-antitrust-meta-narrative/>

¹¹ https://www.meti.go.jp/english/policy/mono_info_service/information_economy/digital_platforms/index.html



introduce DMA-style legislation was abandoned due to the realisation of the costs that such laws would impose, while existing ‘ex-post’ rules were adequate to address the potential competition issues discussed. In some particular areas (such as app stores), South Korea has introduced targeted laws.

The significance of innovation

As the Draghi Report outlined, regulatory barriers to scaling up in Europe are particularly onerous in the tech sector, especially for young companies. Accordingly, Draghi recommended measures to support European inventors and founders to scale up and commercialise their ventures.¹² He found Europe must increase its innovation efforts to bridge the gap with the US and China, identifying an investment shortfall of €750-€800 billion per year, and a need to revamp its newly-instated competition regime. In contrast, the US is home to highly-successful technology driven businesses (including the majority of companies mentioned in the Consultation Paper) and has not progressed an ex-ante competition regime. These concerns that over-regulation is harming innovation in the EU were echoed recently by the EC Vice President Henna Virkkunen who said ‘... the Commission will this year present at least five legislative simplification packages, which will cut down on the extra bureaucracy, above all in order to promote investment and innovation in Europe’.¹³

The impact on innovation and investment

At the time of its implementation, the EC did not prepare a robust impact assessment for how the envisaged rules would impact digital investment, innovation and consumers. This has led EU academics and businesses to increasingly question and raise concerns about the long-term implications of this legislation for the adoption of digital services in the European economy.¹⁴ The evidence emerging in the EU points to significant costs and harms to businesses. For example:

- Google was forced to remove features such as maps, bookings and reviews from search services, clicks from Google ads to hotel websites decreased by 17.6%. Google has said that ‘*Under the DMA, we’ve had to remove useful Google Search features for flights, hotels and local businesses.*’¹⁵ In November 2024, Google announced that it was temporarily testing removing some of its functionalities when presenting online search results for hotels, in an attempt to avoid a DMA non-compliance finding.¹⁶ Before the DMA, a Google search for ‘crêpes in Paris’ would show both local results plotted on Google Maps, and a ‘Maps’ tab at the top of the results page. After the DMA, Google’s search results in the EU no longer include the ‘Maps’ tab. Users can no longer view aggregate hotel offers, locate hotels via Google Maps, or access the ‘hotel package’ feature.¹⁷

¹² Draghi, Mario, *The future of European competitiveness – Part A competitiveness strategy for Europe*, 9 September 2024 (**Draghi Report**), https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en, ch. 2.

¹³ <https://www.channelnewsasia.com/business/eu-digital-chief-will-propose-plans-ease-regulation-4949491>

¹⁴ Evans, David S., ‘Why Europe Must End Its 30-Year Digital Winter to Ensure Its Long-Run Future’, PYMNTS, April 18, 2024, <https://www.pymnts.com/opinion/2024/why-europe-must-end-its-30-year-digital-winter-to-ensure-its-longrun-future/>; Auer, Dirk, ‘The Broken Promises of Europe’s Digital Regulation’, Truth on the Market, March 12, 2024, <https://truthonthemarket.com/2024/03/12/the-broken-promises-of-europes-digital-regulation/>; Broadbent, Meredith, ‘Implications of the Digital Markets Act for Transatlantic Cooperation’, Center for Strategic and International Studies, September 15, 2021, <https://www.csis.org/analysis/implications-digital-markets-act-transatlanticcooperation>; Teece, David J., Kahwaty, Henry J., ‘Is the Proposed Digital Markets Act the Cure for Europe’s Platform Ills? Evidence from the European Commission’s Impact Assessment’, April 12, 2021, At URL: https://media.thinkbrg.com/wpcontent/uploads/2021/04/11215103/Is-the-DMA-the-Cure_Teece_Kahwaty.pdf, at p. 47.

¹⁵ Auer, Dirk, ‘The Broken Promises of Europe’s Digital Regulation’, *Truth on the Market*, 12 March 2024,

<https://truthonthemarket.com/2024/03/12/the-broken-promises-of-europes-digital-regulation/>

¹⁶ <https://blog.google/around-the-globe/google-europe/dma-compliance-update/>

¹⁷ Chamber of Progress, *Europe’s Digital Curtain: How the Digital Markets Act is Turning Europeans into Second-Class Digital Citizens*, December 2024, pp. 10 and 11.



- On 18 July 2024, Yann LeCun, Meta’s chief AI scientist, announced that Meta would not launch its multimodal AI models or products in the EU, citing the unpredictable nature of the European regulatory environment.¹⁸
- Ahead of the DMA compliance deadline, Microsoft announced it would be delaying the roll out of some features in the EU and that newer features would be rolled out over time.¹⁹

There are similar concerns about the impact of broad ex-ante regimes such as the DMCC, which are not yet apparent in the UK, because no companies have been designated in the five months since it became effective. Commentators are concerned that the CMA’s ability to intervene in already competitive sectors is likely to adversely affect the commercial decisions, economic incentives and conduct of designated firms, with a flow-on to the businesses that rely on their services. For example, ICLE found that the DMCC will undermine investment in the UK digital sector and associated innovation because of the risk of cumbersome, unclear and ever-changing rules, and the associated lack of accountability due to limited review grounds.²⁰ That is, it is seen as disproportionately interventionist, with no proper process and a subjective test.

It also observed that the DMCC goes much further than other regulations by providing the CMA with the power to design bespoke interventions for individual firms, and that businesses are likely to become more hesitant to invest in the UK.²¹

The UK Government itself became so concerned about the potential negative effects of the ex-ante regime it has adopted that it recently: (i) replaced the Chair of the CMA; and (ii) issued a strong directional Steer to the CMA that it should focus on innovation and investment, which is currently being consulted on.

The proposed regime conflicts with the Government’s digital and productivity aims

The Government has set an ambitious productivity agenda, particularly in relation to the use of digital technologies. Australia will move further away from that goal if it implements a competition regime scoped to potentially include every type of ‘digital service’ but not imposing equivalent obligations on the same products and services when provided through offline channels that compete with digital services.

Similar comments were made recently by the Government’s then-Special Envoy for Cyber Security and Digital Resilience (now Assistant Minister for Science, Technology and the Digital Economy) and economist, Dr Andrew Charlton MP:

‘The biggest thing that we can do ... to set Australia up for another generation of prosperity is to digitise the Australian economy, to recognise that the meal ticket of Australia will be built in the global digital economy over the next several decades.

We need to work across every dimension of our government, of our industries, of our society, to grab that opportunity.’²²

Modelling of the expected economic impact of increased interventionist regulations in the EU, as part of its ‘strategic autonomy’ policy, found a reduction in productivity growth and innovation due to reduced trade between the EU and non-EU countries.²³ Similarly, modelling of the economic

¹⁸ <https://www.theverge.com/2024/7/18/24201041/meta-multimodal-llama-ai-model-launch-eu-regulations>

¹⁹ <https://blogs.windows.com/windows-insider/2023/11/16/previewing-changes-in-windows-to-comply-with-the-digital-markets-act-in-the-european-economic-area/>

²⁰ Auer, Dirk, Matthew Lesh and Lazar Radic ‘Digital Overload How the Digital Market, Competition and Consumers Bill’s sweeping new powers threaten Britain’s economy’ September 2023, p. 9. <https://iea.org.uk/publications/digital-overload-how-the-digital-markets-competition-and-consumers-bills-sweeping-new-powers-threaten-britains-economy/>

²¹ Ibid, p. 9.

²² InnovationAus, Tech and AI: ‘The politics of this is not straightforward’, 11 February 2025, <https://www.innovationaus.com/tech-and-ai-the-politics-of-this-is-not-straightforward/>

²³ Frontier Economics, *Measuring the Impacts of the European Union’s Approach to Open Strategic Autonomy*, 22 November 2022.



impact of the DMCC on the UK economy found that an ex-ante digital competition regime could lead to: (i) UK consumers and business users receiving worse, and less diverse, services; (ii) the UK becoming a less attractive destination for investment; and (iii) smaller businesses, that are less able to shape and benefit from regulatory interventions, being put at a disadvantage.²⁴ In a similar vein, the OECD's Regulatory Reform Review of Australia from 2010 suggested that levels of regulation in Australia's network industries were particularly high and that Australia should explore ways to improve productivity.²⁵

Ex-ante regulation in Europe under the DMA is also likely to reduce incentives to invest not only for digital businesses that are designated but also for smaller businesses. Entry by global digital businesses to a market has the benefits of bringing in 'drastic' or transformative technologies or innovations, which are likely productivity enhancing, and brings significant consumer benefits from innovation.²⁶ Over-regulation is likely to reduce incentives to invest for smaller digital firms who will also face lower incentives to innovate if they anticipate future success and growth will be accompanied by significant regulation, and therefore a reduction in the value of success. Firms' innovation and growth efforts are driven, in part, by access to larger global markets.²⁷

Merits review rights

Finally, we note that a critical element of good regulation is ensuring decisions made are covered by effective review mechanisms. The nature, scope and certainty of review rights can directly affect investor confidence. A lack of transparency or unduly limited review grounds undermines business confidence leading to reduced investment. Judicial review rights alone do not resolve these concerns as they do not provide businesses with sufficient certainty that errors and mistakes can be corrected and the correct decision made.

Particularly in relation to regulations that affect access or control of economic assets, decisions under the regulatory framework have the capacity for very significant ramifications for the owner of those assets but also more broadly with property, investment and public interest and other consequences flowing from important decisions. Only merits review would allow a comprehensive review of such decisions and provide businesses with the legal certainty needed when making investment plans, and provides comfort that that (despite any ex-ante rules) the Australian legal framework overall would carry appropriate checks and balances.

3. Observations on select questions from the Pillar 1 Consultation Questions

How has regulatory burden changed over time?

Although it is difficult to generalise about regulatory burdens across entire businesses, we consider that in core regulatory areas, that burden has increased. Australia is not immune to the general tendency for regulation to expand and increase, particularly in the absence of clear goals and targets for restricting or removing regulations. As discussed above in relation to digital regulation, one key driver of this tendency is a sense (often expressed by regulators) that Australia should not 'fall behind' international developments. We comment above in relation to the ex-ante proposals that, for a middle-sized, open economy, it is often better for Australia to wait to assess the effects of regulations introduced elsewhere, and in many cases, to take advantage of the benefits that come from a relatively lightly-regulated economy, including encouraging investment, responsiveness to economic developments, and opening opportunities for innovation and dynamism.

²⁴ CCIA and Europe Economics, *DMCC: Economic Impact*, September 2023, https://ccianet.org/wp-content/uploads/2024/01/CCIA_DMCC-Economic-Impact.pdf

²⁵ OECD, *Reviews of Regulatory Reform: Australia 2010*, 15 February 2010 https://www.oecd.org/en/publications/oecd-reviews-of-regulatory-reform-australia-2010_9789264067189-en.html

²⁶ Oxera, 'The Impact of the Digital Markets Act on Innovation', 26 November 2020, p. 2, <https://www.oxera.com/insights/reports/the-impact-of-the-digital-markets-act-on-innovation/>.

²⁷ Oxera, 'The Digital Markets Act and incentives to innovate', Prepared for Amazon May 2021, https://www.oxera.com/wp-content/uploads/2021/05/The-Digital-Markets-Act-and-incentives-to-innovate_final.pdf



In addition to proposed ex-ante digital regulation, there has been a general increase in key areas of economic regulation. We have seen extensions to the Australian Consumer Law, changes in scope of the unfair contract terms legislation and changes to penalties. There is currently a proposal to introduce new, general 'unfair practices' provisions to the ACL, which will add to existing provisions on misleading and deceptive conduct, unfair contract terms and unconscionable conduct. It is noteworthy that the proposal for an unfair practices provisions does not include a proposal to repeal unfair contracts legislation, which if the new provision is well-designed, should also be covered.

Regulations that are time-consuming, overly complex or otherwise constraining business dynamism and resilience.

The constraints and frustrations felt by business are more often the result of regulators not fully understanding the application of regulations to new businesses and business models, and taking a risk-averse, interventionist approach in areas where a more common-sense perspective would recognise that this is unnecessary.

We consider there are two responses to this challenge the PC should consider: 1) any recommendations should ensure greater coherence in the regulatory landscape, rather than adding an additional layer of bureaucracy for firms, and 2) it should affect a change in how regulators approach their duties, to hold them to account following the clear intention that they prioritise economic growth. Any resulting processes or new institutional arrangements that are expressed in regulations should not risk creating additional regulatory burdens, but should be designed to achieve regulatory efficiencies. Particularly in relation to regulations that focus on digital services, Amazon Australia is concerned that there is currently insufficient coordination to achieve an innovation-friendly approach **across** regulators.

The PC should also consider ensuring regulators are appropriately held to account for performance, ensuring innovation is properly factored into decision making. Although many regulators are periodically accountable to Parliament, in reality this rarely results in substantive changes. This assessment could be done by: 1) benchmarking against international peers; 2) looking at international investor confidence in the Australian regulatory landscape; and 3) setting up a program of Post-Implementation Reviews of regulation to measure whether regulations are achieving their stated objectives and assess any unintended consequences and wider economic impacts. On the last point, we note that some moves were taken in that direction in the establishment of the Australian Centre for Evaluation within Treasury. Amazon Australia welcomes the early progress on establishing the Centre but notes there is considerable work to be done before the Centre will achieve its aims.

Our view is that these measures would add an important check on regulatory power that would send a meaningful message to international investors that Australia is serious about economic growth, and the importance of predictable and proportionate regulatory action to achieve that objective.



PILLAR 2 - BUILDING A SKILLED AND ADAPTABLE WORKPLACE

Amazon Australia supports reforms that enable students and workers to build the skills and knowledge that are increasingly required in technology and industrial-focused businesses.

There are three major technology education and workforce development challenges in Australia:

1. the need to improve educational technology implementation in schools through better infrastructure and teacher training;
2. the importance of developing flexible post-secondary education with effective recognition of prior learning (RPL) systems to meet the growing tech workforce demand; and
3. the need for standardised frameworks and better recognition of workplace training through micro-credentials.

All three areas raise the need for standardised and preferably internationally-aligned frameworks, better infrastructure, and more efficient recognition of skills and training to meet future workforce demands.

This submission provides input on three stages of education:

1. improving secondary student outcomes with access to and use of educational technology tools;
2. supporting post-secondary education; and
3. training with more flexible training options, and creating opportunities in work-related training.

Collaboration and sharing networks is essential to foster partnerships between schools, universities, and the tech industry. These networks should facilitate the sharing of best practices and the development of communities of practice for educators, while ensuring secure collaboration and data storage that meets legislative requirements. The successful implementation of these improvements will also require coordinated effort across federal, state, and territory education systems, sustained funding commitments, and regular evaluation and adjustment of strategies.

1. Secondary schooling

Improving the use of Educational Technology tools in schools

To effectively improve the use of educational technology (edtech) tools in Australian schools, a comprehensive approach to addressing multiple key areas is necessary. The transformative potential and the practical challenges of integrating advanced educational technology in Australian schools is acknowledged and suggestions for meeting these challenges are made.

First, infrastructure and equality of access should be prioritised through the deployment of high-speed networks across all schools. This needs to be coupled with targeted infrastructure investment to bridge the digital divide between urban and rural schools, along with the implementation of uniform digital learning device standards across jurisdictions.

Professional development for teachers is equally crucial. Educators need comprehensive training in utilising educational technology effectively, with particular emphasis on understanding and implementing tools such as Generative AI (**GenAI**) appropriately. Establishing standardised parent/carers consent protocols for all school systems, along with internationally aligned policies governing GenAI use in student assessment, learning activities, and teaching practices would provide consistency and efficiency in teaching practices.

Strategic improvements across the curriculum emphasising integration of technology presents an opportunity to balance the teaching of traditional subjects alongside new digital capabilities. This could include updating digital literacy standards to incorporate cloud skills and AI competencies across all curriculum standards, while designing authentic learning experiences that leverage technology effectively.



Quality control measures could be strengthened by mandating accreditation (such as Safer Technologies for Schools) for edtech tools used in Australian schools. This should be supported by a centralised reporting portal for edtech tool usage and continuous vetting processes for AI-powered educational solutions through Education Services Australia. Content management also requires significant improvement and could be achieved through the establishment of clear metadata standards, version control systems, and streamlined workflows for regular updates. There should also be consideration of creating a system that enables easy customisation of materials for different educational contexts while maintaining quality standards.

Resource allocation is another critical component, requiring increased targeted funding for edtech infrastructure and ongoing professional development. The establishment of an adaptable, generic ('white label') Australian Schools K-12 Private Marketplace for approved edtech platforms would streamline procurement processes.

Awareness and access to high quality lesson planning and curriculum materials in schools is a primary challenge for teachers, who often struggle to locate relevant, high-quality resources efficiently, largely due to the absence of a standardised national platform. This has led to the emergence of informal solutions, such as teacher-created social media groups like 'On Butterfly Wings' on Facebook. The inconsistent access across different states and territories, coupled with time constraints, further compounds these challenges.

To address these issues, a comprehensive platform development initiative is crucial. This should include creating a unified national digital platform for curriculum resources (or revamping Scootle), incorporating smart search functionality with AI-powered recommendations. The platform should feature intuitive filtering by year level, subject, and curriculum outcomes, alongside a robust user rating system from verified educators.

Professional collaboration should be fostered through structured communities of practice, enabling both online and in-person teacher-to-teacher networking. This is particularly important for supporting regional, rural, and remote communities. Quality standards could be upheld through implementation of peer review processes, quality rubrics, and verification processes for curriculum alignment.

The success of these school-based improvements hinges on dedicated funding for platform development and maintenance, clear governance structures, ongoing quality assurance, and active engagement from the teaching community to ensure buy-in and sustainable utilisation.

Integration and access to edtech, GenAI or lesson planning and curriculum

The intersection of educational technology, particularly GenAI, with curriculum resources represents a critical juncture in Australian education that demands careful consideration and strategic action. This integration presents both unprecedented opportunities and significant challenges.

In terms of resource integration and access, the development of a unified national digital platform that seamlessly combines curriculum resources with appropriate edtech tools is an opportunity to improve efficiency, consistency and productivity. A platform built upon the foundations of existing standards such as Safer Technologies for Schools (ST4S) could assist in ensuring security and reliability. Looking toward the future, it's crucial to build capacity for AI-enhanced lesson planning and resource customisation. A crucial aspect of this integration is the embedding of Parent/Carer consent protocols directly into resource access systems, ensuring transparency and compliance with privacy requirements.

Quality assurance and support mechanisms need substantial enhancement. This includes the development of comprehensive frameworks for evaluating both traditional and AI-enhanced teaching materials. Verification processes must be established to ensure proper curriculum alignment and pedagogical quality. Additionally, robust professional development programs are



necessary to support educators in effectively utilizing and adapting these resources in their teaching practice.

The success of these initiatives depends heavily on coordinated efforts across education sectors, sustainable funding models, and an unwavering commitment to professional development. Most critically, we must strike a careful balance between embracing innovation and maintaining appropriate safeguards, always keeping improved student learning and wellbeing outcomes as our primary focus.

2. Supporting the workforce through a flexible post-secondary education and training sector

Amazon Australia supports initiatives that accelerate the adoption of emerging technologies skills across the post-secondary training and education sectors, and is an industry partner working alongside government agencies, vocational providers, and tertiary institutions to assist in the development of national level ICT skill frameworks, taxonomies and education programs.

A 2023 analysis of tech workforce mobility demonstrated that 28% of tech workers were in non-tech roles five years prior²⁸; and rapid re-skilling of the 1.1 million 'near tech' workers into the tech workforce will be required to meet the projected 1.3M tech workers needed by 2030. An effective, affordable and efficient Recognition of Prior Learning (RPL) process will be a core enabler for the Australian technical workforce to meet demand projected by 2030 to support re-skilling and transition workers into tech job roles.

Data on the use of RPL in technology careers is limited and dated at time of release, further exacerbating the ability of the sector to effectively address issues with RPL into tech jobs. The tech industry does not have standard naming taxonomies for skills, and job roles tend to focus on vendor language rather than standard job role and skills descriptors to assist in workers and learners. Additionally, nationally recognised skills frameworks for core tech jobs like cyber, AI and cloud do not exist. This leads to high variability in the way employers and education/training providers describe and recognise skills and qualifications for similar roles across industry. This variability makes it difficult for employers, learners and workers to understand and describe the skills required for tech jobs roles.

While recognising there is an urgent need to access the 'near tech' workforce to re-skill into tech jobs, industry has not yet articulated standard attractive transferable skills for in-demand roles in the tech jobs market. Addressing these barriers will enable the industry to adopt mechanisms to deliver a 'shortest-path-to-skilled' approach for in-demand tech jobs.

The absence of national alignment on job and skills naming conventions, tech skills frameworks and recognition of favourable transferrable skills suitable for tech jobs all create barriers for a standardised and effective RPL process for the tech industry.

3. Work-related training

Amazon Australia provides open access for employees to an extensive technical and work-related training library and has mandated quarterly and annual training requirements for employees. This approach ensures our employees maintain an understanding of technical advances in products and capabilities relevant to their employment vertical and the emerging needs of customers.

We have work-related training opportunities that provide transferrable and externally recognised certification through both optional and required training courses such as Certificate IV (optional) or forklift licence (required). However, engagement in many other work-based training courses provides only internal recognition of skills and competencies. Additional benefits could be provided to the employee and the employer through external recognition of the bulk of internal training undertaken. The lack of national skills frameworks and a naming taxonomy for tech skills and job

²⁸ <https://www.nsw.gov.au/sites/default/files/2023-02/ICT-Industry-Landscape-Report.pdf>



roles has resulted in a lack of standardisation and understanding of tech skills across the industry. The wide variability in the requirements of micro-credentials to be recognised under the National Micro-credential Framework,²⁹ and their lack of currency within tech services, is a barrier to organisations seeking to use micro-credentials to recognise work-based training for the benefit of their employees. Broader use of micro-credentials to recognise work-based training and competency attainment would also make it easier for workers to transition into high-demand jobs and industries.

Comprehensive restructuring of skills and training management Technology trades such as needed in future logistics operations offers opportunities for enhanced productivity and operational efficiency. This approach focuses on creating standardised systems while maintaining compliance with national requirements.

The foundation of this improvement strategy lies in the standardisation of technical competencies. By developing uniform competency frameworks for maintenance technicians and automation engineers, organisations can ensure consistent skill levels across all facilities. These frameworks would align with both international standards and Australian requirements, creating clear progression pathways that are recognised across workplaces.

Central to this strategy is the implementation of a unified training management system. This would include a national training portal serving as a single point of access for all technical staff, supported by a comprehensive database of qualifications and certifications. Standardised training modules would be developed to satisfy requirements across all states, eliminating redundant training and reducing administrative overhead.

The implementation strategy advocates for a measured, proof-of-concept approach, beginning with pilot programs at selected facilities. Initially focusing on high-priority trades like electrical and automation, this approach allows for careful documentation and measurement of outcomes, building compelling case studies for broader implementation.

Significant efficiency improvements can be achieved through the elimination of duplicate training requirements across states and the streamlining of onboarding processes for interstate transfers.

Risk management remains a priority, with clear compliance frameworks, quality assurance processes, regular auditing of training outcomes, and thorough documentation of competency standards. This comprehensive approach would lead to reduced onboarding time, lower training costs, increased workforce flexibility, improved resource allocation across sites, enhanced compliance management, and maintained high safety standards.

This standardised approach could serve as a model for national implementation across various industries requiring technical expertise and interstate mobility of skilled workers.

²⁹ <https://www.education.gov.au/higher-education-publications/resources/national-microcredentials-framework>.



PILLAR 3: HARNESSING DATA AND DIGITAL TECHNOLOGY

Amazon Australia supports reforms that build public confidence in data and technology. We welcome the PC's review of the existing regulatory framework relevant to data and digital technology, with the objective of streamlining processes, enhancing efficiency and reducing the regulatory burden on business to enable innovation and productivity growth, which ultimately benefits consumers, including through building public confidence in data and technology. This section of our submission focuses on the following two policy reform areas identified under Pillar 3: enabling AI's productivity potential; and reforms to Australia's privacy framework.

1. Artificial Intelligence

Enabling AI's productivity potential

Our views on AI are informed by our dual role as a developer of AI technology and a deployer of AI tools and services. Our focus on AI and machine learning (ML) spans over 25 years. For example, AWS offers a broad and deep set of AI and ML services for cloud customers, empowering developers to build, train, and deploy their own ML models or easily incorporate pre-trained AI functionality.

AI and ML are some of the most transformational technologies of our time, but it is still early days in their development, application and regulation. The advent of large language models has unlocked new opportunities for GenAI to improve customer experiences, boost employee productivity, drive economic growth, and more. AI has the potential to tackle some of humanity's most pressing issues. We are seeing real-life examples where AI is helping manufacturers compete globally by reducing the costs of operating and maintaining industrial assets and field equipment; helping farmers increase their crop yields while reducing waste; and helping companies minimise their carbon footprint by enhancing the energy efficiency of their infrastructure. The uptake of AI can provide unparalleled opportunities to be a force for social good, and to drive significant economic growth and productivity benefits, both in Australia and beyond.

While there is widespread recognition that AI has the potential to reshape the economy and improve modern life, recent advances have also prompted questions both in Australia and internationally about how to manage the risks of this technology. To that end, Australia will only be able to unlock AI's full potential by fostering greater confidence among consumers and businesses.

Regulatory approach to AI

Amazon Australia is committed to harnessing AI responsibly—working hand-in-hand with customers and governments around the world to develop and use AI systems with safety, fairness, and security at the forefront. We are committed to developing fair and accurate AI services and providing customers with the tools and guidance needed to build applications responsibly. We recognise that safe and responsible AI is the shared responsibility of all organisations that develop and deploy AI systems. We're not developing technology for technology's sake — every move we make in this vein is to improve the experience for our customers and our partners, with the conviction that success and scale bring broad responsibility. As AI is increasingly used to automate decisions that have significant impacts on people's lives, health, and safety, we recognise that government has an important role to play in promoting innovation and safeguarding the public.

AI is a general-purpose technology that can be put to an extraordinarily broad range of uses. Any efforts to devise a comprehensive, one-size-fits-all regulatory framework are unlikely to be effective and fail to capitalise on robust legal frameworks already in place. Rather than pursuing a prescriptive "horizontal" approach to AI regulation, where all sectors and use cases are treated along similar lines, the Government should focus on ensuring that existing technology-neutral laws and sector-specific regulations remain fit-for-purpose in an era when AI will increasingly be used. Sector-specific regulation works well as it allows regulators who understand the use case to make informed determinations about the risk of using AI for specific purposes, rather than attempting to introduce



catch-all, blanket regulation. Sectoral regulators, whether in financial services, transportation, health or others, are closest to their industries and are familiar with the ways in which they are already using AI and will be using AI in the future. Leaving regulators with strong knowledge of their industries to regulate AI would ensure greater agility and innovation in these sectors. Where any gaps are identified, any new regulatory frameworks should take a risk-based, use-case specific approach aligned with international AI standards. As we have recommended in previous submissions, such as our submission to the Department of Industry, Science and Resources' consultation on *Introducing mandatory guardrails for AI in high-risk settings*, the Government has the opportunity to establish Australia as a leader in the development of AI that is safe, responsible, and effective. Accomplishing this requires the articulation of a comprehensive, pro-innovation policy framework that underscores the key role that technology-neutral consumer protections and sector-specific regulations will continue to play.

AI standards

For Australia to harness all the opportunities and productivity benefits AI may offer, its approach to AI standards will be a critical part of facilitating uptake throughout the economy.

Global standards can reduce regulatory fragmentation and facilitate interoperability as companies seek to build and deploy solutions in line with best practices. In relation to AI adoption in Australia, the Treasury Secretary Dr Steven Kennedy recently commented that “wherever possible, we leverage existing technology-neutral laws and regulations” as “this provides certainty which will support innovation and more rapid adoption”.³⁰ Technical standards are inherently more agile than regulations, and can more readily be adapted to address the fast pace of technological innovation. Amazon globally is actively engaged with organisations and standards bodies focused on the responsible development of next-generation AI systems including the International Organization for Standardization (ISO) and the National Institute of Standards and Technology (NIST).

As governments around the world are addressing the same policy challenges, it is vital that Australian AI standards are interoperable to the greatest extent possible. International standards, such as those set forth by NIST or ISO, play an important role so that the many players across the AI supply chain don't end up with a patchwork of local, conflicting regulations. Such an outcome would create regulatory uncertainty and unnecessary compliance costs, undermining the potential benefits of innovation.

While global standards on AI remain nascent, the ISO reached an important milestone in December 2023 with the publication of ISO 42001, a management system standard that provides guidelines for managing AI systems within organisations. ISO 42001 emphasises a commitment to responsible AI practices, encouraging organisations to adopt controls specific to their AI systems, fostering global interoperability, and setting a foundation for the development and deployment of responsible AI. We believe that ISO 42001 certification will be one of the ways for organisations to demonstrate excellence in responsibly developing and deploying AI systems and applications, providing an effective framework for developers and deployers to manage risk as appropriate for their business operations. Amazon Australia commends the Australian Government's alignment of the 10 voluntary AI guardrails under its Voluntary AI Safety Standard (VAISS) with ISO 42001.

Expanding access to AI

Amazon Australia's overall approach to AI is to expand access to AI technology, by investing and innovating to empower a wide range of stakeholders, including customers of all sizes and developers of all skill levels, and across all industries, to unlock the benefits of AI while prioritising responsible development and deployment practices. We are improving customers' lives with practical, useful

³⁰ Dr Steven Kennedy, Post-Budget economic briefing, 28 May 2025: <https://treasury.gov.au/speech/address-australian-business-economists-2025>



generative AI innovations. We build and deploy new AI technologies that are reliable, secure, safe, and deliver experiences our customers' trust.

Jurisdictions that are effective at diffusion and deployment, rather than the initial frontier breakthroughs, are the ones that benefit the most from technological revolutions. AWS's AI and ML models are working on behalf of hundreds of millions of Amazon customers around the world, and providing tangible value by removing friction from supply chains, personalising digital experiences, and making goods and services more accessible and affordable.

As one example, AWS has launched Amazon Bedrock in Australia, a fully-managed service that enables our customers to easily build and scale generative AI applications, with access to a diverse range of foundation models from industry-leading model providers. Amazon Bedrock allows our customers to easily experiment with and evaluate top FMs for their use case, to privately customise them with their data, and build agents that execute tasks using their enterprise systems and data sources. This helps our Australian customers – from early-stage startups and small businesses, to medium and large enterprises – to transform their business models and seize opportunities in the digital economy by using these cloud-enabled technologies.

2. Privacy

We welcome the PC's consideration of whether Australia's privacy regime strikes the right balance between consumer protection, business innovation, and productivity growth through digital and data technology. The responsible and secure collection and use of personal information enables businesses to innovate, and allows them to better serve their customers. By way of example, we use customer information to provide customers with the services they love, and in ways that benefit them – be it making it easier to discover products when shopping on Amazon.com, finding their next favourite show on Prime Video, or providing them with suggestions of products they might like based on others who purchased the same thing.

We always strive to be clear about how Amazon Australia is collecting, using, or sharing personal information. That's why we not only build privacy directly into our products and services, but we also make it easy and intuitive for customers to learn more about how Amazon Australia collects, uses, and shares their data. In fact, we were one of the very first retailers to allow customers to view their browsing and purchase history from "Your Account" and manage which items could be used for product recommendations.

We support privacy laws that protect individuals' personal information while balancing an organisation's legitimate need to collect and process that information. We have previously recommended to the Government that reforms to Australia's federal privacy framework be both principles-based and risk-based, and we support the PC's proposal to support safe data access and handling through an outcomes-based approach to privacy. This approach will help to empower organisations to determine the most appropriate measures to manage privacy and data protection risks, and ensures that laws and regulations remain relevant to the dynamic, complex and evolving digital landscape. By contrast, overly-specific and non-internationally aligned regulatory requirements can limit an organisation's ability to offer new services to customers, use new technologies, or develop new businesses in Australia, relative to other jurisdictions.

We have previously engaged with the Government on plans to reform Australia's Privacy Act, and welcome further opportunities to discuss this important area of reform. We welcome many of the recommendations the Government has indicated it will take forward in response to the Privacy Act Review Report, such as its in-principle agreement to the recommendation to introduce a clear distinction between data controllers and data processors. We would welcome the Government introducing this distinction to better harmonise Australia's laws with international frameworks, and will improve accountability and clarity for all entities by recognising the different roles entities play in the collection, use and disclosure of personal information. The controller-processor distinction will



also ensure responsibilities related to handling of personal information are appropriately assigned as between processors and controllers, such as the responsibility to provide individuals with access to their personal information.

We also support the Government's intention to introduce voluntary, and not mandatory, standardised templates for privacy notices and consent requests. We had previously cautioned against the recommendation to create mandatory standardised templates, notices, icons or specific terminology, as these could limit interoperability with international privacy legislation, fail to account for specific circumstances where alternative approaches would be clearer or more accessible for individuals.

However, there are a number of critical areas that require further clarity, to ensure that compliance obligations are implementable, deliver on their intended objectives, and are consistent with other international privacy approaches. For example, the Government has signalled an intention to introduce a 'fair and reasonable' test for the collection, use and disclosure of personal information. We continue to recommend that the test is modified by introducing a requirement to ensure that personal information is 'processed lawfully, fairly and in a transparent manner'. This would ensure harmonisation with international legal frameworks, and avoid uncertainty for both organisations and individuals resulting from applying different terminology in different privacy law regimes. Other areas requiring additional consideration include how any reforms treat targeted advertising and direct marketing to ensure there is a balance between protecting privacy and enabling legitimate business activities, including in relation to the delivery of personalised service experiences for the benefit of consumers. As a threshold matter, greater clarity is needed about the meaning of the terms 'targeted advertising' and 'direct marketing', to ensure that privacy regulations do not unreasonably encroach on the ability of businesses to personalise content and services for their customers. Further, any additional transparency obligations should focus on information that will be meaningful to consumers, while minimising customer friction, and not requiring disclosure of commercially-sensitive information in a way that may deter businesses from offering innovative service solutions in Australia.

We also note that work is ongoing in relation to some of the amendments to the Privacy Act that passed in 2024, specifically in relation to the development of guidance on the enhanced transparency requirements in relation to use of personal information for automated-decision making (ADM), and the development of the proposed Children's Online Privacy Code. It is important that any guidance is clear and easy for industry to operationalise (for example, in the context of ADM by providing clarity on what would constitute a 'substantially automated decision' that may 'significantly affect' the rights or interests of an individual) and does not establish duplicative regulatory requirements (for example, in relation to age-gating for online services under the Children's Online Privacy Code, which is already addressed in detail under the Online Safety Act and supporting industry codes and standards). Overall, we recommend that any future guidance and regulation in this area be proportionate, risk-based and outcomes focused, in order not to unduly constrain technological innovation.