

Australia's AI Productivity Opportunity

Tech Council of Australia White Paper

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TCA Submission: Economic Reform Roundtable

The Tech Council of Australia (TCA) represents Australia's leading technology companies. Our sector is the nation's third largest, contributing \$167 billion to GDP per annum and employing over 935,000 people - and that is without taking into account the additional value created through the efficiencies, connectivity and outputs aided by tech across the economy.

The Economic Reform Roundtable provides a pivotal opportunity to ensure we as a country can collectively harness the potential innovative tech - and Artificial Intelligence (AI) in particular - has to drive productivity, bolster economic resilience and contribute to budget sustainability for generations to come. Not just through adoption, but through innovation.

This submission explores the need to align investment, incentivisation, infrastructure and regulation to support AI innovation, as well as adoption. If we do, AI and other frontier tech innovations stand to become the foundation upon which we as a nation address strategic challenges, maintain our global competitiveness, and improve our quality of life.

AI Innovation

Australia must pivot from being a passive AI consumer. This imperative is not just economic - it is also about preserving Australia's national and cultural identity, as well as our national capabilities, in an age of intelligent systems.

Central to this will be unlocking new sources of capital to drive homegrown innovation, and reversing the decline in R&D expenditure that we have witnessed over the past 15 years.

As part of this, tech innovators need greater access to private capital - through VC and superannuation funds for example - to support the development and commercialisation of new Australian AI models, applications, and intellectual property.

We must also make the most of our comparative advantages. Our land mass and renewable energy generation potential, paired with our global reputation as a safe and stable trading partner, should be leveraged to position us as a regional hub for clean compute.

Data centres in particular present a unique opportunity for Australia to position ourselves within the supply chains of tomorrow - we can and should capitalise on the growing global demand for the infrastructure required to power the digital economy.

A national digital infrastructure advisory body should be formed to collaborate with state and territory governments as well as industry with the aim of streamlining planning and approvals processes for the rollout of such digital infrastructure.

Underpinning all of this should be a fit-for-purpose, interoperable and risk-based regulatory framework that facilitates domestic AI investment, talent and innovation. A clear, flexible and interoperable regulatory framework for AI is essential to give developers and adopters the confidence to invest in AI for the future. Copyright law reform, such as text and data mining carve outs, should also be considered.

AI Adoption

As we innovate, we also need to ensure we as a nation can simply keep up - that includes adopting and applying the innovation already available to improve our quality of life.

Skills will make or break our ability to do this. In addition to ensuring we can compete to attract and retain global talent, a National AI Skilling Partnership should be established that introduces targeted incentives as well as drives education and training reform to rapidly upskill our workforce. A dedicated Australian Centre for AI Skills & Capability should drive system-wide reform of Australia's education and training system.

In the immediate term, the service economy can benefit from AI. We need to accelerate the digital government agenda to modernise legacy systems and, importantly, drive the adoption of AI technologies across the public sector.

To this, and to the uses of AI and technology in workplaces more broadly, research we conducted late last year indicates most Australians believe technology has improved their working lives. Many see AI as a tool that will enhance, rather than replace, human work. The results of this research - Future Ready: Australians and AI Workplace Tech - are also attached.

Please reach out to our Acting Head of Policy, Madeleine Houghton, at [REDACTED] for more information on this submission, or to our Head of Research, Dr Ilana Feain, at [REDACTED] for more information on our research.

Sincerely,

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Chair
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Introduction

Lifting productivity is the key to Australia's future prosperity. It is the only enduring way to raise wages, deliver better services, and maintain rising living standards amid growing demographic, fiscal, and global pressures. We welcome the Government's renewed focus on productivity as a chance to co-design a growth agenda that keeps Australia competitive and resilient in a changing world.

Australia is entering a new era of challenge and transformation. Domestically, growth is slowing, productivity gains have stalled, and our workforce is undergoing deep structural shifts. Globally, we face shifting geopolitical dynamics and the rapid emergence of new industries, supply chains, and trading blocs.

Central to meeting these challenges is Australia's technology sector. Already a powerful engine of productivity and growth, the digital economy offers critical levers for boosting productivity, attracting investment, and building domestic capability.

The Economic Reform Roundtable provides a pivotal opportunity to reset Australia's economic future: lifting productivity, strengthening economic resilience, and ensuring fiscal sustainability. Technology innovation and adoption underpins all three goals. Prosperity, productivity and technology are now a single policy conversation.

Artificial intelligence sits at the heart of this next productivity wave. As one of the most transformative general-purpose technologies of our time, AI will reshape how we work, deliver services, and create value across the economy. TCA research has found that AI is poised to add \$115 billion a year to Australia's economy and generate around 200,000 new domestic jobs.¹ These benefits will be spread across every sector of the economy, especially in areas where fast adoption is taking place such as financial services, telecommunications, mining and healthcare.

International research points to even greater global potential, with AI projected to unlock US \$2.6–4.4 trillion in additional economic value every year. Realising Australia's share of this opportunity will require deliberate choices.²

Yet capturing this potential is far from automatic. Countries worldwide are moving rapidly to consolidate positions in a fiercely competitive AI landscape, clustering investment and capability at unprecedented speed. Australia, historically a strong technology adopter, risks falling behind in both AI adoption and development.

International benchmarks demonstrate that Australia stands out as a strong leader in policy and governance. However, our economic competitiveness and private investment in AI lag

¹ Tech Council of Australia, "Meeting the AI Skills Boom," (2024).

² McKinsey Global Institute, "The economic potential of generative AI: The next productivity frontier," (2023).

significantly behind many other nations – ranking 14th out of 34 countries for private investment into AI and last in public offering investments.³

To thrive in the new AI economy, Australia must lead in both innovation and adoption. Adopting proven AI solutions will be critical to deliver productivity gains, while long-term economic resilience and global competitiveness will also depend on our ability to cultivate local innovation, talent, and research. By focusing on areas where Australia has a comparative advantage, we can shape high-value industries and ensure we are not just consumers of AI, but active contributors to its global development

Without deliberate policy action, Australia's current trajectory as an AI importer will mean significant productivity gains will flow offshore, leading to slower growth, strategic vulnerability, and the continued loss of our top talent. This imperative goes beyond economics, it speaks to Australia's cultural identity. If we don't drive AI innovation at home, we depend entirely on tools built abroad that don't fully grasp or reflect our unique contexts, values and experiences.

Australia can and should shift from being a passive AI consumer to a globally indispensable partner. Just as keystone species sustain their ecosystems, Australia can become an 'AI Keystone Economy' that contributes unique and irreplaceable capabilities that support the global AI ecosystem. Our strategic goal must be to secure highly impactful, defensible positions in the international AI value chain.

Realising this vision demands a deeper partnership between government and global and local technology companies, focused on removing barriers, building local capability, and stimulating both AI innovation and widespread adoption. Coordinated action will give Australia a once-in-a-generation chance to harness AI as a powerful driver to revitalise productivity, lift living standards, and secure our economic future.

³ Stanford University, *The AI Index 2025 Annual Report (2025)*, AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, Stanford, CA.

Summary of Recommendations

Recommendations for Driving Productivity through AI Innovation

1. **Unlock new sources of capital to drive AI innovation in Australia—such as superannuation investment—and support broader reforms recommended by the forthcoming national review of the R&D system**
2. **Signal Australia's ambition to become a regional hub for clean-compute**
3. **Establish a national digital infrastructure advisory body, in partnership with industry and state and territory governments, to collaborate on strategic planning and streamline approvals processes to accelerate the rollout of AI-related infrastructure and associated renewable energy resources**
4. **Establish a clear, flexible, risk-based and interoperable regulatory framework for AI to attract investment, talent, and innovation into Australia's local AI ecosystem**
5. **Implement short-term measures to facilitate local AI model development with a view to meaningful copyright reform in the long-term, such as through a text and data mining exemption to copyright laws**

Recommendations for Driving Productivity through AI Adoption

6. **Commit to establishing a National AI Skilling Partnership that:**
 - a. **Introduces targeted incentives to rapidly upskill Australian workers in AI technologies**
 - b. **Drives system-wide reform of Australia's education and training system through establishing an Australian Centre for AI Skills & Capability to train job-ready tech workers**
7. **Accelerate the digital government agenda to modernise legacy systems and encourage rapid adoption of AI technologies across the public sector**

Driving productivity through AI innovation

Sustained productivity growth comes not just from greater efficiency, but from expanding the frontier of what is possible. These step-changes in economic output are driven by innovation – the generation of new ideas, the development of breakthrough technologies, and the creation of intellectual property that reshapes entire sectors.

In the AI era, such innovation spans a sophisticated value chain, extending from raw data and advanced computing infrastructure to software engineering, commercial deployment, and widespread adoption.⁴

At the foundation lies the infrastructure layer. This encompasses the specialised hardware required to support massive computational demands of AI, including advanced AI chips, high-density data centres, and the fibre-optic and power networks that connect them. Infrastructure supports both the intensive training of AI models and their global deployment for practical services, providing the essential computational resources upon which every subsequent layer depends.

Built atop this infrastructure is the platform layer, centred around AI foundation models—including frontier models developed by industry leaders such as Google, OpenAI, and others. The platform layer depends heavily on access to vast, high-quality datasets that train and ground these sophisticated models.

Ultimately, the infrastructure and platform layers underpin the application layer. This consists of the devices and software solutions that utilise AI to deliver improved services and experiences. The true value of AI emerges when these models are effectively integrated into everyday business operations, public services, and consumer interactions.

The critical innovation challenge lies in activating the entire AI technology stack—transforming frontier models into tailored, practical tools that solve real-world problems. It is within this layer that engineering choices, model fine-tuning, prompt engineering, application development, and user experience converge. Here, AI delivers tangible productivity benefits by accelerating clinical diagnoses, automating compliance processes in financial services, or optimising complex logistics networks.

Unlocking this layer of innovation demands coordination across multiple domains. Infrastructure investment is essential – not only in high-performance compute but in open, secure data environments and model sharing frameworks. Regulatory clarity is equally vital, ensuring responsible innovation without stifling experimentation.

At the heart of AI innovation also lies a global contest for research and development talent. Access to top-tier AI researchers, engineers, and systems designers is now a decisive factor

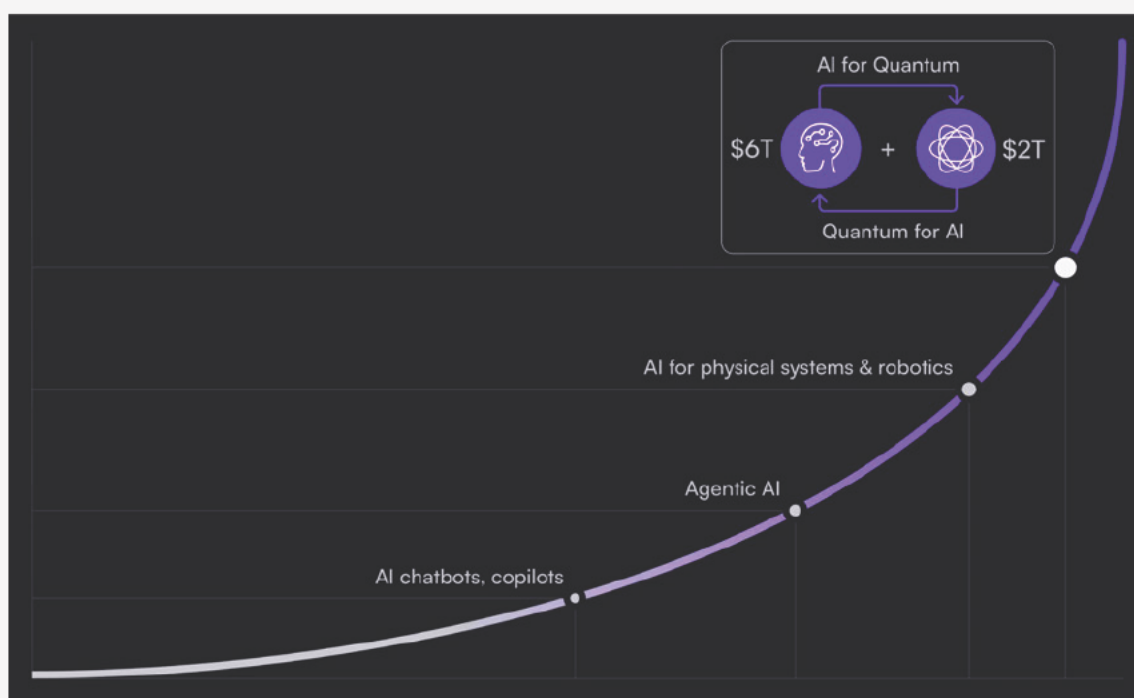
⁴ Microsoft & Mandala Partners, *Australia's opportunity in the new AI economy: Defining the new AI economy in Australia* (2024).

in whether nations can shape — rather than simply adopt — the next wave of technological breakthroughs.

If Australia is to capture the full productivity benefits of AI, policy must focus on creating an ecosystem that enables this middle layer — where infrastructure meets ingenuity, and where system-wide transformation becomes possible.

Converging Frontiers: Australia's Global Edge in Quantum-AI Integration

The integration of quantum computing and AI stands out as a major technological force capable of driving significant productivity gains in the 21st century. Globally, the quantum economy is projected to generate approximately US\$1.3 trillion in value by 2035, particularly in areas where quantum technologies and AI jointly accelerate complex computational tasks.⁵



Australian companies such as Diraq and Q-CTRL are at the forefront of these developments. Q-CTRL is using AI to enhance the stability and performance of quantum systems, while Diraq is leveraging novel quantum computing architectures to power next-generation AI capabilities. This synergy is projected to add up to \$9 billion to our GDP and create 50,000 skilled jobs by 2045.⁶

⁵ World Economic Forum, *Embracing the Quantum Economy: A Pathway for Business Leaders* (2024).

⁶ The Department of Industry, Science and Resource, *Australia's National Quantum Strategy* (2023), The Commonwealth Government of Australia.

Australia's established global leadership in silicon-based quantum hardware and quantum infrastructure software uniquely positions it to capitalise on these emerging opportunities. Integrating AI with quantum platforms will accelerate scientific discovery, shorten R&D cycles, and enable new optimisation and simulation capabilities across critical industries. Early impacts of this convergence are already evident in sectors where Australia holds competitive strengths, including biotechnology, resources, advanced manufacturing, clean energy, and defence, where quantum-AI technologies are actively transitioning from research labs to commercial deployment.

Driving productivity through investment in technology

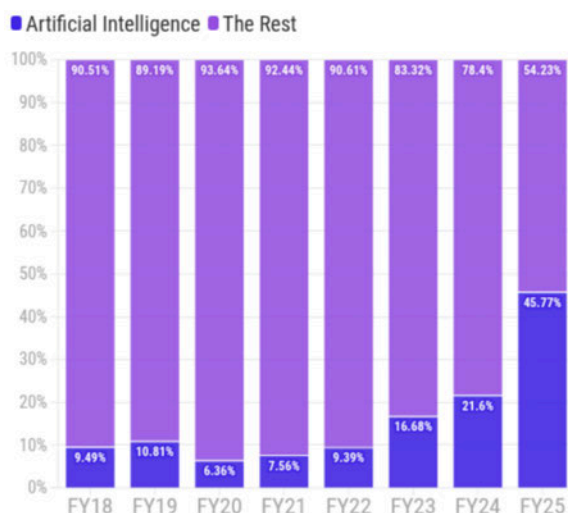
AI is emerging as a critical enabling technology at the heart of Australia's tech investment landscape. It plays a pivotal role in driving innovation across some of the country's fastest-growing industries including fintech, climatech, and healthtech.

According to Techboard, 46% of all private funding (and accounting for 39% of all deals) into Australian tech startups and scaleups last financial year involved companies using AI to scale, underscoring its widespread integration across the tech economy. This cross-cutting influence is particularly visible in areas like fintech, where companies such as [REDACTED], leveraging AI to power its global expansion and product innovation.⁷

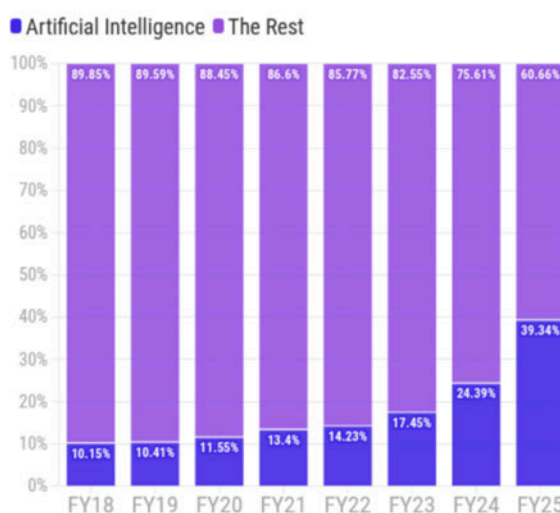
Similarly, in climatech and medtech, AI is accelerating breakthroughs in diagnostics, decarbonisation, and personalised care. Rather than existing as a siloed vertical, AI is fast becoming the engine room of next-generation technology across sectors, cementing its role in Australia's broader productivity and innovation story.

⁷ Techboard, Australian Startup Funding Dataset FY 2024–25 (unpublished data).

Artificial Intelligence Proportion of Total Investment FY18-FY25



Artificial Intelligence Proportion of Total Deals FY18-FY25



Despite these promising signs, there is room to improve capital flows and to lift R&D investment across the economy to underpin our innovation ecosystem.

Unlocking Australia's substantial superannuation pool for tech investment is crucial for the nation's innovation ecosystem. Australia's total superannuation assets are worth about A\$4.1 trillion.⁸ Currently, regulatory hurdles like ASIC's RG 97, which focuses heavily on the disclosure of gross fees in Product Disclosure Statements, can unintentionally discourage super funds from investing in less liquid, higher-fee private capital such as venture capital or private equity that often backs early-stage tech companies. By addressing these barriers – perhaps through a greater focus on net fees and longer investment horizons for performance testing – more superannuation capital could flow into promising tech ventures. This influx of long-term funding would provide vital growth capital, fostering the development of new technologies, creating jobs, and ultimately driving economic diversification and productivity for Australia. The TCA can play a key coordinating role in helping address these issues alongside reforms that would help unlock investment into tech.

Australia's tech investment – defined as the sum of R&D and tech adoption spending – is currently equivalent to 3.9% of GDP. Based on existing trends, this figure is forecast to fall to 3.5 per cent of GDP by 2030 due to the ongoing decline of R&D spending as a share of GDP and a lack of growth in tech adoption investment. This decline would cost Australia around \$8.2 billion dollars in 2035 alone and a total of \$25.3 billion dollars between now and 2035 in foregone productivity benefits.⁹

⁸ APRA, [Quarterly superannuation performance statistics highlights](#), March 2025

⁹ Tech Council of Australia, "From Research to Reality: Lifting Tech Investment in Australia," (2024).

The TCA has called for a national target of 4.6% of GDP in combined R&D and tech adoption investment by 2035. This would contribute an additional \$39 billion to GDP from productivity gains. This is not a stretch goal – it is the minimum required to ensure we remain level with the OECD median average and remain globally competitive. Falling short risks more than just economic stagnation. It undermines our resilience, erodes local capability in critical technologies, and reduces our ability to shape the systems and standards that will define the next era of global growth.

Australia boasts world-class AI research, yet we under invest in the development stage that converts breakthroughs into deployable technologies, new firms, and competitive advantage. Strengthening this link is critical: broad AI adoption will lift productivity across incumbent businesses, while locally developed solutions seed new ventures, attract investment, and create high-value jobs. Closing the development gap would therefore both turbo-charge established industries and foster a vibrant ecosystem of AI-driven startups.

The forthcoming Strategic Review of R&D is a pivotal chance for Australia to chart a bolder course for public and private investment in research and development. Beyond high-level principles, the review will be expected to give concrete advice on the policy levers that unlock that investment—particularly by modernising the R&D Tax Incentive (RDTI) to fit digital innovation and upgrading the employee-share-scheme framework so high-growth tech firms can attract and retain world-class talent without excessive compliance barriers.

By addressing these two enablers, alongside measures that deepen industry-research collaboration and streamline commercialisation pathways, the review can position Australia to turn cutting-edge ideas into jobs, exports, and productivity gains at scale.

Recommendation 1: Unlock new sources of capital to drive AI innovation in Australia—such as superannuation investment—and support broader reforms recommended by the forthcoming national review of the R&D system

We expect the Review will cover key areas limiting investment in R&D, such as:

- Adopting a national tech investment target of 4.6% of GDP by 2035.
- Updating the R&D Tax Incentive framework to reflect international best practice.
- Improving Australia's Employee Share Scheme regime.
- Facilitating greater superannuation investment in deep and emerging tech, like AI.

Domestic superannuation capital is a key source of long-term, patient capital that is well suited to investment in tech. Government should enable Australians to share in the economic returns of the AI transition by creating clearer pathways for superannuation funds to invest in AI-related opportunities, including compute infrastructure, frontier model development, and high-potential domestic startups. This could involve targeted mandates, co-investment vehicles, or policy settings that reduce perceived risk and increase deal flow in the sector. Mobilising even a small portion of Australia's \$4.1 trillion superannuation pool would help close the domestic capital gap, strengthen sovereign capability, and ensure that long-term national savings are invested in the technologies shaping the future economy.

In order to address the issues surrounding superannuation investment into tech, the TCA is willing to play a convening role in bringing together industry superannuation funds, unions, and venture capital firms to reimagine how Australia's largest capital pool can be better invested in early stage R&D and startups.

The Rising Tide of Global Public Investment in AI

Countries around the world are rapidly scaling up their investment in artificial intelligence to secure leadership or close the gap with frontrunners. Governments are deploying a mix of strategies—offering concessional land and cheaper energy, fast-tracking development permits, and directly funding the acquisition of advanced chips and construction of data centres.

The United States and China dominate this race, with the U.S. investing more than US \$5.2 billion¹⁰ in public funds and announcing in 2025 a private-sector commitment of up to US \$500 billion for the Stargate project. China is projected to spend more than US \$56 billion in public funding for AI in 2025 alone.¹¹

Other countries are also investing at scale. Canada pledged CA \$2.4 billion in 2024, while France committed €109 billion in 2025. India announced US \$1.25 billion to subsidise compute power and build a multilingual national AI model, and Saudi Arabia launched Project Transcendence, a US \$100 billion initiative.¹²

While the largest economies dominate in total spending, smaller nations also stand out on a per-capita basis: over the past decade, the United States led with US \$1.58 million per 100,000 people, but Finland and Denmark follow closely at about US \$1.3 million each.

The pace of growth is striking. Europe's total AI investment in 2023 was approximately 67 times higher than in 2013, compared to a 15-fold increase in the United States. These trends highlight how both scale and targeted innovation policies are shaping the global race to build AI capacity.

Driving productivity through digital infrastructure

High-capacity digital infrastructure is the foundation on which almost all modern innovation is conceived, built and distributed. Without ubiquitous, low-latency connectivity, productivity gains evaporate: engineering teams stall, data-driven decisions in finance, health, logistics and retail freeze, and the cloud backbone underpinning everything from e-commerce to

¹⁰ Stanford University, *The AI Index 2025 Annual Report (2025)*, AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, Stanford, CA.

¹¹ Tech Wire Asia, *China AI investment hits US\$98 billion in 2025 as tech war with the US intensifies (2025)*.

¹² Stanford University, *The AI Index 2025 Annual Report (2025)*, AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, Stanford, CA

precision agriculture falters. Reliable, fast connectivity does more than keep people online—it enables households and businesses to fully participate in the digital economy.

Ensuring we have continued investment in high quality, resilient, and secure digital infrastructure will also be an important enabler of the productivity opportunities of AI.

This shift toward greater capacity, purpose built digital infrastructure is being accelerated by AI. Training and deploying frontier AI models require vast computing power, specialised hardware, and ultra-low latency connections. Unlike conventional workloads that break down into short, independent tasks, AI training is a multi-day exercise that keeps tens of thousands of processors synchronised in perfect unison.

Countries that assemble this critical mass of compute power will become the focal points of the global AI economy. This dynamic is fuelling intense global competition among countries seeking to establish themselves as essential AI hubs. Investment in data centres is projected to exceed \$6.7 trillion worldwide by 2030 to keep pace with the demand for compute power, driven largely by the scaling demands of generative AI and advanced analytics.¹³

Whether Australia becomes a creator of frontier AI technologies, rather than merely a buyer, depends on how effectively we respond to this global trend.

Yet much of the underlying infrastructure — electricity, water and telecommunications networks—was designed for a pre-digital era. Their associated planning and regulatory systems still treat data centres as niche industrial loads, not as critical national infrastructure. As a result, the development permitting schemes for those sectors are ill-equipped for the demands of frontier AI: rapid investment timelines, power density, cooling systems and ultra-low-latency connectivity needed to train cutting-edge models and deliver national-scale inference.

Against this backdrop is the changing economics of Australia’s telecommunications sector. In some cases, investment is shifting from bold, full-scale roll-outs to more targeted, staged upgrades—reflecting economic conditions in the sector, as well responding to customer demand, global device availability and effects of the global pandemic with Australia’s adoption of 5G being slower than might otherwise be expected.

Faster 5G adoption will better enable the development of real-time AI applications, widespread IoT and edge AI, and rapid AI model training due to improved speed and low latency. While 6G is expected to unlock the next generation of AI applications, the technology will not be available until around 2030. The near term emphasis should therefore be on AI developments around emerging 5G advanced capabilities.

¹³ McKinsey, The cost of compute: A \$7 trillion race to scale data centers, April 2025.

Meeting Australia's digital infrastructure needs

To meet these challenges, Australia must recalibrate national policy settings to anticipate the infrastructure demands of emerging technologies in the decades ahead. This requires moving beyond short-term, sector-specific responses toward a more integrated approach that aligns investment, regulation and planning across energy, digital and industrial systems.

As many of these issues span state and territory boundaries, it is essential to build national consensus on the economic importance of digital infrastructure and coordinate the policy tools needed to deliver it at pace.

A refreshed policy toolkit should look to:

- Attract international investment by providing global investors with clear, long-term signals that Australia is a global destination for high-performance, low-carbon computing capabilities at scale.
- Support state and territory governments to streamline approvals for enabling infrastructure, including energy and water connections.
- Accommodate diverse AI workloads by ensuring planning frameworks allow for varied architectural designs and use cases.
- Review telecommunications market settings to reflect the shifting economics of network investment and capacity constraints.
- Unlock new sources of renewable generation and storage that align with the energy demands of advanced AI infrastructure.

Australia's strengths in solar technology, battery storage and grid flexibility offer a solid foundation for building the next generation of digital infrastructure. With the right planning frameworks and stronger integration across energy and digital systems, these assets can be leveraged to make sustainable, high-performance computing a source of national competitive advantage.

More coordinated infrastructure development will also lay the groundwork for future R&D, supporting a more sophisticated innovation ecosystem. If executed well, Australia can position itself as a hub for global AI development—exporting homegrown technologies, attracting leading talent, and securing long-term economic and strategic benefits.

Recommendation 2: Signal Australia's ambition to become a regional hub for clean-compute

To cement Australia's role as a destination for clean-compute, the Government should publicly declare its ambition to become the region's premier destination for sustainable, high-performance computing, which may include initiatives such as digital embassies to allow other countries in the region to host data. This signal of intent will help attract global data-centre and renewable-energy investors by demonstrating a clear, long-term commitment to low-carbon infrastructure, while unifying federal, state and territory

stakeholders around a shared vision for streamlined approvals and coordinated policy support.

Recommendation 3: Establish a national digital infrastructure advisory body, in partnership with industry and state and territory governments, to collaborate on strategic planning and streamline approvals processes to accelerate the rollout of AI infrastructure and associated renewable energy resources

The advisory body would create a structured forum for dialogue between governments, regulators, energy market bodies and industry to surface the practical challenges encountered in delivering digital infrastructure. Its role would be to build alignment on shared priorities, identify common implementation bottlenecks, and recommend policy and regulatory solutions to resolve them. By fostering coordinated, evidence-based planning, the body would help ensure Australia's infrastructure systems are fit for purpose in supporting the next wave of AI-driven productivity.

Regulatory clarity enables AI innovation

Realising the promise of national capabilities in AI infrastructure also hinges on regulatory clarity and leadership. Capital, talent, and data flow to jurisdictions where the rules are predictable, proportionate, and interoperable with other major markets. In order to fully realise the benefits of AI innovation and be competitive on a global scale, we need a regulatory approach that is designed to maximise the AI opportunity and stimulate productivity coupled with an evidence-based approach to risk. Doing so is critical to nurturing local innovation.

Promoting AI innovation through balanced regulation

Clarifying AI regulation offers a cost-neutral opportunity to drive home-grown innovation and adoption, giving Australia the certainty it needs to lead in the AI era.

Governments worldwide are pursuing balanced AI regulation to harness the innovation and productivity opportunities AI offers. For example, the European Commission has opened the EU AI Act for industry consultation in response to concerns that its compliance costs and uncertainty unfairly burden smaller innovators.

Forward-leaning approaches, particularly in the Asia-Pacific region, also illustrate how innovation can be balanced with building trust and responsibility in the tech sector and managing risk. Singapore has implemented a soft touch approach with its sector- and technology-agnostic Model AI Governance Framework which sits alongside sector-specific guidance for AI systems in particular industries and existing legislation on issues such as personal data.

Similarly, Japan has recently enacted the AI Promotion Act which brings to life the government's ambition to make Japan the world's 'most AI-friendly country'. This legislation builds on existing AI guidelines and establishes high level principles to promote the research,

development and adoption of ‘AI-related technologies’ and complement existing sector-specific regulation.

Australia must now evolve in step with these international practices if we are to capture AI’s full potential. Fragmented or overly bespoke domestic rules would raise compliance costs, hinder startups’ ability to scale overseas and deter critical investment. Instead, we should pursue regulatory interoperability—exploring mutual-recognition or “safe-harbour” mechanisms—and send a clear, timely signal on how we will manage AI-related risks.

A coherent Australian framework should build on our existing institutions and legislation by:

1. Adopting central definitions of AI and its key risk categories to ensure consistency across regulators.
2. Establishing a coordination mechanism—whether a dedicated taskforce or empowered central agency—to align existing agencies and guide policy development.
3. Enabling industry partnerships so that AI experts can be rapidly mobilised to identify and mitigate emerging harms.

By forging a roadmap aligned with international best practice, Australia can give AI developers and adopters the certainty they need to invest, innovate and compete on the world stage.

Recommendation 4: Establish a clear, flexible and interoperable regulatory framework for AI to attract investment, talent, and innovation into Australia’s local AI ecosystem

Australia should adopt a forward-leaning regulatory approach that gives AI developers, businesses, and global investors the confidence to operate, innovate and scale from Australia. Interoperability with leading AI jurisdictions can be achieved by aligning the regulatory approach with international best practice and including mutual recognition or ‘safe harbour’ mechanisms. It should also include responsive, evidence-based measures to tackle AI risk which are promptly implemented to deliver regulatory certainty.

The regulatory framework should leverage the sector-specific expertise of existing regulators and include appropriate coordination across different levels of Government to deliver clear obligations for the industry.

Unlocking frontier AI innovation through copyright reform

Australia’s current copyright frameworks are restricting frontier AI innovation. Training foundation models depends on text and data mining—automated analysis of massive text, image and audiovisual corpora to extract patterns that improve model accuracy.

Yet Australian copyright law excludes text and data mining use cases, only permitting a narrow ‘fair dealing’ exception for specified purposes. This contrasts with countries like the United States which adopt a broader ‘fair use’ doctrine without reference to specified uses.

Other leading AI nations have adopted an approach by clarifying that transformative model-training activities do not infringe copyright. Singapore’s statute now expressly

authorises “computational data analysis”, and Japan similarly allows “non-enjoyment use” for AI research. The EU’s directive establishes a general text-and-data-mining exception, with a commercial opt-out for rightsholders, and the UK has enacted a non-commercial mining exception and is consulting on extending it to commercial uses with a reservation mechanism.

Australia remains an outlier, lacking both a broader fair-use doctrine and a dedicated text-and-data mining exception. This is pushing researchers and startups offshore, deterring local experimentation, and undermines our capacity for AI innovation. Without reform, model training will remain external, embedding overseas linguistic and cultural biases in the systems we rely on and denying Australian creators a seat at the table.

Comprehensive copyright reform will take time. If Australia seeks to be a leading AI nation, it must also adopt interim measures that give our world-class innovators the confidence to develop and train models locally. These should be clear, narrowly defined and easy to implement. This isn’t just vital for foundational model training; it’s equally crucial for AI application development.

The TCA supports narrowly tailored text-and-data-mining exceptions and increased access to high-quality Australian datasets. These steps will ensure our unique cultural perspectives and expressions are embedded in next-generation AI.

Recommendation 5: Implement short-term measures to facilitate local AI model development with a view to meaningful copyright reform in the long-term, such as through a text and data mining exception

The development of foundation AI models requires statistically analysing vast corpora of text, images and audiovisual material which creates high risk of copyright infringement given Australia’s narrow ‘fair dealing’ exception.

Australia should enact a clear text-and-data mining exception. It should also consider broader measures to make high quality local datasets available for AI model training, such as open data reforms.

This reform is vital to enable responsible AI model training on Australian content and will ensure that our country’s unique contexts and values are embedded in global AI models.

Driving productivity through AI Adoption

The broad adoption of AI presents one of the most significant productivity opportunities in a generation. Since 2022, AI-exposed sectors globally have recorded almost five times higher growth in labor productivity than non-exposed sectors, with revenue-per-employee now growing at roughly three times the pace of the least-exposed sectors.¹⁴ Modelling by Oxford Economics has shown that with high adoption of generative AI by businesses, the annual productivity boost in the US could grow to 3.5% by 2032.¹⁵

Extending AI deployment economy-wide can significantly lift national productivity and real wages—but only if Australia develops an AI-ready workforce.

Australia already glimpses this potential in sectors like healthcare and mining, where early adopters leverage AI to streamline operations, improve outcomes and drive efficiency. Forthcoming TCA research shows that Australian workers are willing to embrace new technologies: 72% of employees say digital technologies have improved their working lives over the past decade; 73% feel confident they can keep pace with future technological change; and 93% believe AI will enhance—rather than replace—their roles by 2030.¹⁶

However, enthusiasm alone will not suffice. Realising these gains depends on preparing every worker for AI-infused roles. As AI reshapes tasks and workflows, it will augment some jobs, redefine others and spawn entirely new occupations. It will also shift how skills are valued, reorganise workplaces and raise employer expectations.

This transformation is already underway: AI and related technologies are reconfiguring roles, processes and business models across health, logistics, education, finance, construction and public administration—not merely automating isolated tasks but redesigning entire systems.

To embed AI safely and effectively, Australians must develop a baseline fluency—using AI tools in daily work with the same ease they use smartphones. While most workers will need foundational AI literacy, many will require higher-level training: some through on-the-job programs or vocational courses, others via university degrees in computer science, data analytics or AI engineering. Business leaders, too, will need targeted education to oversee AI integration and governance.

Like past general-purpose technologies, AI is likely to reshape rather than replace most roles—amplifying some tasks, eliminating others and creating new opportunities. The scale of productivity uplift will hinge on clear, credible and accessible reskilling pathways. Without them, countless workers risk uncertainty—and Australia will forfeit its competitive edge.

¹⁴ PwC, *2025 Global AI Jobs Barometer* (2025).

¹⁵ Oxford Economics and Huawei, *Digital Spillover* (2017).

¹⁶ TCA (*unpublished*) *Future Ready: Australians and AI Workplace Tech* (2025).

A National AI Skilling Partnership is needed to build Australia's AI-ready workforce

Meeting this moment requires more than minor adaptations to the status quo. It calls for a **deliberate, national approach to workforce transformation**: one that anticipates change, builds local capability and expands access to upskilling and reskilling pathways.

Australia's tech sector is uniquely positioned to drive Australia's AI-skills agenda, and are already playing an important role. Across the tech sector and beyond, companies increasingly view workforce capability as a core asset—fundamental to competitiveness, innovation, and long-term productivity growth.

That shift is translating into tangible action: firms are embedding AI competencies into internal training programs, co-developing curriculum with educators, and expanding entry pathways through apprenticeships, micro-credentials, and mid-career retraining. There is a clear recognition that meeting future skills needs will require deep, sustained partnerships across organisational, geographic, and sectoral boundaries

Industry-led action is essential—but on its own, it won't be enough. Realising the full benefits of AI for all Australians will require deeper, more deliberate coordination between the public and private sectors. This transformation must be co-owned.

Government brings reach and legitimacy; industry understands emerging needs; educators build capability; and communities are essential partners in delivery. A shared commitment to inclusive workforce renewal is the foundation for ensuring that technological change translates into shared prosperity.

The public sector also has a critical role to play in addressing this challenge. Government employment offers stable, structured training environments that can serve as a valuable on-ramp to technology-enabled careers. This approach is already proving effective in cybersecurity, where public service graduate programs are helping to build national capability while seeding talent into the broader economy.

A shared commitment to inclusive workforce renewal must sit at the centre of this effort. Only by aligning the strengths of each partner can we ensure that technological change drives broad-based opportunity—lifting productivity, supporting secure employment, and enabling all Australians to participate in the economy of the future.

Building on Fertile Ground: Home-Grown Partnerships

Existing examples of public–private collaboration lay a strong foundation for a nationwide AI-skilling initiative. By combining government reach, industry expertise and academic rigour, these partnerships deliver targeted, job-ready training.

The Institute of Applied Technology–Digital (IAT-D)

The IAT-D is a tripartite collaboration that unites:

- TAFE NSW’s vocational agility, by rapidly designing and delivering microcredentials that respond to employer feedback on in-demand skills.
- Microsoft’s industry expertise, through curriculum co-development and guest lectures from practising engineers.
- UTS’s academic strength, by embedding theory in emerging fields and by accrediting completed modules toward higher-education pathways.

Together, these partners co-design short, stackable courses in cloud computing, cybersecurity and AI that directly map to job roles in sectors from finance to health. Employers contribute case studies, project briefs and instructor support to ensure content mirrors current workplace challenges.

Graduates leave not only with technical certificates, but with portfolios of live-project deliverables and industry-verified competencies—an outcome only possible through the seamless integration of vocational, corporate and university capabilities.

NSW Digital Skills & Workforce Compact

The NSW Digital Skills & Workforce Compact is a seven-year, cross-sector initiative designed to address an anticipated shortfall of 85,000 digital workers in NSW by 2030. It brings together the NSW Government, leading technology companies, industry bodies and education and training providers to co-design and implement strategies that build a resilient pipeline of digitally skilled talent.

At its core are six pillars of action:

1. Change the way people think about digital careers
2. Plug the leaks in training and careers
3. Drive diversity in the digital workforce
4. Help people move into digital training and jobs
5. Make training more responsive to industry needs
6. Use government levers to drive digital job growth

Since its launch in November 2023, the Compact has mobilised over 35 partners and initiated at least eight foundational projects. A flagship initiative, the “20% Alternative Pathways Pledge,” supports organisations to ensure that one in five entry-level digital hires come from non-traditional backgrounds—expanding access and strengthening the talent pipeline.

Recommendation 6: Introduce targeted incentives to rapidly upskill Australian workers in AI technologies

The Government's fee-free TAFE initiative has removed direct cost barriers to foundational digital skills—but SMEs, which account for over 90% of Australian businesses and often lag in productivity, still face real hurdles: releasing staff for training, back-filling roles and integrating new capabilities without disrupting operations.

By pairing fee-free TAFE with targeted employer incentives, such as wage subsidies for trainees, matched training grants or refundable tax credits, Australia can de-risk investment in AI experimentation. This will accelerate adoption among smaller firms, spreading productivity gains across the economy's most resource-constrained segments and helping SMEs leapfrog into AI-enabled workflows.

Sustaining a culture of continuous innovation also demands incentives that reward workers for deepening and formalising their AI expertise. Because much AI training today occurs in applied, project-based settings, employees often acquire valuable skills that sit outside traditional qualifications—and short-term pressures can often discourage them from pursuing full accreditation.

To bridge this gap, the Government should introduce professional development allowances or top-up payments tied to industry-aligned credentials. By signalling the market value of advanced AI capabilities, this approach will enable more efficient deployment of human capital, help businesses plan for longer-term returns on training investments and boost real wages for high-demand skills.

Aligning our education and training systems with changing technologies

Australia's long-term prosperity will be shaped not only by our capacity to develop AI technologies, but by how well we prepare people to apply them across the economy. Our education and training system is central to that task, but its current structure is not well suited to the speed, complexity, or industry-driven nature of AI's evolution.

Innovation in AI is outpacing the ability of traditional systems to adapt. Formal qualifications take years to redesign and accredit. While our universities and VET providers serve essential functions, neither is fully optimised to meet the pressing demand for applied, technical AI skills.

The challenge is not simply to expand existing programs. It is to rethink how we design, deliver, and recognise training to ensure it is fast, flexible, and aligned with real-world deployment.

This means embracing a more plural, system-wide view of skills development. One that draws on the depth of universities, the workforce reach of VET, and the speed and relevance of industry-led training. Each has a distinct role to play:

- Universities remain vital for building foundational knowledge and research capability. But current incentives favour credentialled coursework or theoretical research over applied upskilling.
- The VET sector is well positioned to reach a broad cross-section of the population. However, the emphasis on formal qualifications tied to multiyear refresh cycles can limit responsiveness.
- Industry-led training programs are often more adaptive and closely aligned with commercial needs. Formal recognition of these pathways can ensure they are seen as credible routes into high-value employment, not as secondary alternatives.

Critically, more agile training models also support greater inclusion and diversity. When learners can access skills development on flexible terms—without having to pause work, relocate, or invest in lengthy full-time study—the system better reflects the varied realities of Australian workers and communities.

Recommendation 7: Drive system-wide reform of Australia’s education and training system through establishing an Australian Centre for AI Skills & Capability to train job-ready tech workers

Australia continues to face persistent shortages of workers with the right digital skills and tech workers, highlighting a critical gap in the skills and training system. Flexible, agile and industry-integrated VET training pathways are needed to bridge this talent gap. Drawing on successful models such as IAT-D, the Centre would work with industry to independently design, approve, and deliver training that remains relevant, cutting-edge, and aligned with real-world job market needs.

The Centre would serve as a national leader in best practice, demonstrating how to develop agile, industry-integrated skills pathways in fast-moving fields like AI, cybersecurity, and software engineering. By setting a high standard for responsive and innovative training design, it would offer a practical blueprint for other education and training institutions across Australia, strengthening the overall capacity of the system to support dynamic, R&D-intensive sectors.

Unlocking productivity growth in the delivery of government services

Harnessing AI in the public sector goes far beyond streamlining bureaucracy; it can drive broad economic growth and enhance the quality of life for all Australians. By adopting AI responsibly, government can establish public trust, create robust frameworks for data access and protection, and signal to the private sector that these technologies are ready for wider adoption. In doing so, government not only improves the efficiency of its own service delivery but also lays the groundwork for productivity gains across the entire economy.¹⁷

A truly productive public sector delivers more—often better and more personalised services—with the same or fewer resources, freeing up funds for critical investments in healthcare, education and infrastructure. Faster, more responsive government interactions

¹⁷Productivity Commission, [Making the most of the AI opportunity: Research paper 1](#), January 2024

reduce administrative burdens on individuals and businesses, helping to foster a more dynamic and competitive economic environment.

Yet outdated, fragmented IT systems remain a significant drag on national productivity. Modernising these legacy platforms is not merely an internal fix; it is the essential foundation for a digital-first, citizen-centric government capable of leveraging AI's transformative potential. Accelerating the digital government agenda will enable seamless data integration across agencies, support real-time personalised services for users, and provide the scalable infrastructure needed to deploy advanced AI tools. By addressing these challenges head-on, Australia can unlock a step-change in public-sector productivity and inspire innovation throughout the economy.

Government can lead by example first as a sophisticated *user* of AI. This means embedding advanced decision-support systems into policy design, automating routine administrative tasks, and upskilling the public-service workforce to work alongside AI tools. By demonstrating rigorous, ethics-aligned procurement—guided by the Digital Transformation Agency's AI Ethics Principles—agencies can show the private sector how to deploy AI safely and transparently at scale.

As a *data steward*, government can unlock innovation by publishing curated, privacy-preserving datasets. For example, releasing de-identified, aggregated diagnostic-imaging records could enable Australian med-tech developers to lift detection accuracy. Ensuring that high-value datasets are discoverable, well-governed and interoperable will accelerate AI development that tangibly improves Australian daily lives.

Finally, government can act as a *service innovator* by applying AI directly to frontline delivery. For example, intelligent document processing and predictive analytics could compress development-approval timelines from months to mere days unlocking construction activity and reduce compliance costs for builders. Government can drastically improve the way that citizens engage with courts, apply for passports, and claim the childcare subsidy through making their services available via an API, which are also the building blocks to be able to use AI at scale. Scaling AI-enabled workflows can translate digital efficiency into real-world productivity gains felt across the economy.

Recommendation 8: Accelerate the digital government agenda to modernise legacy systems and encourage rapid adoption of AI technologies across the public sector

Tackling Australia's most stubborn productivity drag—outdated, siloed IT platforms—will unlock faster service delivery, seamless data integration and smarter use of AI. Modern digital infrastructure isn't just about internal efficiency; it's the bedrock for a public sector that can champion AI adoption and deliver truly responsive, citizen-centric services.