

An Al Opportunity Agenda for Australia

04	Executive Summary
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06 Introduction

07 Australia's Al Opportunity Environment Health Culture Economy

15 An Affirmative AI Policy Vision for Australia

16 Investing in Innovation Infrastructure

Investing in R&D and AI Infrastructure Pro-Innovation Legal Frameworks Supporting Cross-border Digital Flows and Interoperability

23 Building an Al-ready Workforce

Modernising Skilling Programs for the AI Era Supporting Workers in Transition

27 Promoting AI Accessibility and Adoption

Government Adoption of AI Traditional Industries and Small Business Enabling Regulation Conclusion

Executive Summary

This is a significant moment in the development and deployment of AI in Australia. Australia is taking important steps towards using AI to help drive productivity growth, raise living standards and tackle some of the country's most pressing social challenges. There is now an opportunity for all Australians to come together on a comprehensive AI opportunity agenda in order to take the next steps necessary to realise AI's full potential.

Al is already making a difference in empowering innovation aimed at strengthening Australian healthcare. Al can reveal previously inaccessible insights and accelerate the pace of medical innovation for positive healthcare outcomes. Al applications can also enable customized healthcare for older Australians with complex health needs, including the development of new listening and communications technologies that help seniors to live in their homes independently. Google is working with Australian partners on a <u>project</u> to personalise hearing models to better address individual listening needs to enhance hearing aids and other listening devices.

Al can also be harnessed to support with combating climate change, including climate mitigation, adaptation, and the net zero energy transition. Al technology is helping to protect the Great Barrier Reef, one of the world's most fragile ecosystems and part of Australia's precious natural heritage. Dell Technologies have <u>created</u> a deep-learning model to recognize and categorise all the different corals. This solution documented 51,000 images in just one week, something that would otherwise have taken eight months. This resulted in huge cost savings for the reef and enabled it to speed up its monitoring and conservation efforts.

AI can help drive Australia's transition to a net-zero economy. Incorporating AI into the green energy supply chain will accelerate Australia's ambition to develop its abundant solar, wind and land resources and create high-paying new jobs in renewable energy, for example through AI-enabled production processes for manufacturing <u>solar cells</u>. The ability of AI to help analyse large datasets means that it can be <u>used to</u> monitor energy usage and identify inefficiencies and opportunities for reducing emissions.

If fully harnessed and introduced responsibly, AI has the potential to significantly advance sustainable and inclusive economic growth in Australia. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) has <u>estimated</u> that digital innovations, including AI, could contribute \$315 billion to the Australian economy by 2030. The Australian Government and Australian businesses are already using AI to increase productivity, while creating highpaid, secure jobs, supporting regional development, and enabling the transition to a greener economy. AI has an important role to play in improving the efficiency of strategic Australian industries such as mining, energy and agriculture. Through its capacity to assist, complement, empower and inspire, AI can help answer one of the thorniest challenges facing modern economies: how to increase productivity while sustainably and equitably raising living standards. Boosting productivity growth beyond the projections in the <u>2023 Intergenerational Report</u>, as <u>stated</u> by Treasurer Jim Chalmers, will require effectively adapting and adopting technology to grow a more competitive, dynamic and productive economy. The Productivity Commission has <u>identified</u> the potential of AI to boost national productivity, including through fulfilling vital skill and labour shortages and improving the efficiency and quality of healthcare and education.

To further underline AI's potential for the economy, Al applications are strengthening Australia's industrial base and generating new high-quality jobs. There are numerous pioneering use cases already being developed, including supply chain integration, product customisation, predictive operations, and real-time quality control of manufacturing processes. <u>Research</u> estimates that AI could contribute up to \$5 billion annually to Australia's manufacturing sector by 2030.

Google is committed to supporting Australia's AI development. Through our <u>Digital Future Initiative</u> (DFI), Google is investing \$1 billion in Australian infrastructure, research, and partnerships to build a stronger digital future for all Australians. Google products, many of which are AI-powered, <u>support</u> an estimated \$51.8 billion in economic activity for Australian businesses.

With its high-quality AI research capability, globally competitive universities and highly skilled workforce,

Australia is well-positioned to capitalise on the opportunity of AI. Realizing the promise of AI will require strengthening Australians' understanding and trust in the technology and providing businesses across the economy with the capabilities and confidence to apply it to their own challenges. It will also require reforms to the legal framework in order to provide businesses with the necessary flexibility and clarity to innovate in their use of the technology, while ensuring that AI is developed safely and responsibly. To ensure that Australia can harness AI responsibly and to its fullest potential, we propose three key recommendations:

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Invest in infrastructure and innovation optimising the opportunities presented by this technology by investing in AI research and development, access to and quality of digital infrastructure and compute capacity, and providing a balanced regulatory environment to convert ideas and data into new discoveries, products and services.



Build human capital and an AI-empowered workforce - investing in people to ensure they can use and benefit from AI, from students to workers, and from small businesses to traditional industries.



Promote widespread adoption and universal accessibility - harnessing AI across governments and all sectors of the society to address major societal and economic challenges and ensure the benefits of AI are widely shared.

Introduction

The choices made by governments, industry, and civil society at early stages of technological development will determine the speed and scale of adoption and the extent to which all parts of Australian society can benefit.

Al has the potential to fundamentally change the ways we live, work and learn through its ability to assist, complement, empower and inspire people in almost every field of human endeavour. It is already opening up new possibilities by enabling people to <u>communicate across</u> languages and abilities, helping people stay safe with fire and flood forecasting, reducing energy emissions and improving our ability to <u>detect</u> and treat cancer and other diseases.

Consider AlphaFold, Google DeepMind's AI initiative that uncovered the 3D structure of 200 million proteins - the building blocks of life. That single innovation is accelerating research in nearly every field of biology, speeding up progress on important real-world problems including finding new drugs to treat liver cancer, developing fully effective malaria vaccines and breaking down single-use plastics. The development of the world's first human pangenome reference - a resource that better represents human genetic diversity - will open doors to more inclusive and equitable genetic testing and treatment globally, enabling more accurate diagnoses and development of new therapeutics. In Australia, <u>CSIRO</u> researchers have been using AlphaFold to accelerate their work on drug discovery.

We believe AI can help innovate uniquely Australian solutions to some of the defining challenges of our time. The possibilities are immense: from addressing major public health challenges to boosting productivity and living standards and providing high-quality fulfilling jobs for many more Australians. Together, we must ensure that introducing AI safely improves wellbeing, helps solve Australia's complex challenges and enables us to lead globally in unique areas of research and innovation. To date, the focus has been on addressing potential future risks from AI, and governments in Australia and globally are taking important steps together with industry, academia and civil society stakeholders to address and mitigate these risks.

But to fully harness AI's transformative potential for the economy, for health, for creativity, for the climate and for humanity, we need a discussion about broader steps that governments, companies, and civil society can take to realise AI's promise. We must focus not only on the harms we want to avoid and the risks we want to mitigate, but on the potential we want to achieve.

Building on Google's three-pillar agenda for <u>responsible</u> <u>AI progress</u> – unlocking opportunity, promoting responsibility, and enhancing security — this paper proposes three key recommendations for Australian policymakers, companies, and civil society to deliver AI's benefits to as broad a range of people as possible. To achieve this, we must work in partnership to:

- 1. Invest in innovation infrastructure;
- 2. Build an AI-ready workforce; and
- 3. Promote inclusive adoption and accessibility.

Australia's Al Opportunity

With its technological adeptness, training and education readiness and public and private sector investment in digital transformation, Australia can leverage its unique strengths to harness the AI opportunity. AI has the potential to transform every sector in Australia, propel economic growth, lift living standards and provide Australia's economy with competitive advantages within the region and globally.

Environment

Al can be harnessed to address complex environmental challenges associated with combating climate change, including climate mitigation, adaptation, and the net zero energy transition. Al technology is helping to protect the Great Barrier Reef, one of the world's most fragile ecosystems and part of Australia's precious natural heritage.

Using generative AI, Mei May Soo, Director of Data Science at Dell Technologies, has <u>created</u> a deep-learning model to recognise and categorise all the different corals. Once up and running, this solution managed to document 51,000 images in just one week, something that would otherwise have taken eight months. Today, anyone swimming around the Great Barrier Reef can upload their photos of the coral to support this project. This solution has resulted in huge cost savings for the reef and enabled it to speed up its monitoring and conservation efforts. To date, over 100,000 images have been mapped.

Research scientists at James Cook University <u>used</u> AI to protect the Reef by accurately forecasting the distribution of sediment. Their AI predictive model proved to be highly accurate, which paved the way to leverage AI as a predictive tool to assess the water quality of the Reef more efficiently.

Al can also help protect Australia's unique biodiversity, with over 10% of the world's biodiversity <u>located</u> in this country. Deforestation, habitat degradation, invasive species and bushfires and fragmentation are increasingly putting our complex genome at risk. Al could empower Australia's ecological research and help address this ecological decline.





Under the <u>Digital Future Initiative</u>, Google is <u>working</u> <u>with QUT</u> to develop AI solutions to automatically detect and map wildlife sounds with enhanced efficiency and accuracy, starting with the threatened Glossy Black Cockatoo. We have expanded this collaboration with the launch of <u>A2O</u> Search. This open-source sound search engine, built with Google AI, allows researchers and scientists to search millions of hours of Australian wildlife audio collected by the Australian Acoustics Observatory (A2O). The tool is being used by conservationists to develop detectors for Australian species, including the endangered Plains Wanderer.

Supported by the Government's Biodiversity Monitoring Grants Program, Australian Wildlife Conservancy (AWC) is <u>developing</u> open-source AI recognisers. AI can assist in enhancing the efficiency and cost effectiveness of processing camera trap data collected from biodiversity surveys. AWC plans to create species recognisers for up to 120 mammals and reptiles, including endangered or near-threatened species like the <u>Northern Bettong</u> and <u>Western Quoll</u>. The project promises to provide a vital boost to conservation efforts for threatened species of Australian wildlife.

Australian organisations are using AI solutions to predict and prepare for environmental risks aggravated by climate change, including detecting the risk of bushfires.

The South Australian Government is using AI for monitoring the Green Triangle, one of Australia's largest forestry regions, for bushfires. Researchers at Adelaide University and the University of the Sunshine Coast developed an AI tool that scans user-submited photos of fire-prone areas to predict bushfire risks. Google.org, Google's philanthropic arm, has also supported efforts to use AI to predict bushfires, granting over US \$1 million to the University of Queensland to develop a world-first hazard detection system for bushfires. The team partnered with the Bureau of Meteorology, parks and wildlife services to analyse data from the 2019-2020 bushfire season. The data has been used to develop a new machine learning algorithm which processes radar data and establishes an atmospheric radar map.





The map provides real time, actionable information by allowing firefighters and those on the ground to predict wind changes and the spread of embers. This research will have global impact, particularly in other regions that face large-scale fires, such as California and Europe.

Al tools can support scientists to protect precious marine ecosystems. Climate change and warming oceans have decimated 95% of Tasmania's giant kelp forests, with severe consequences for the Great Southern Reef's vital ecosystems. To help restore Tasmania's giant kelp forests, Google has worked with CSIRO, Institute for Marine and Antarctic Studies (IMAS), The Nature Conservancy, Great Southern Reef Foundation and Kelp Forest Alliance. The partnership uses two Google AI tools (DeepConsensus and DeepVariant) to identify genetic patterns that make certain kelp resistant to heat, which allows researchers to grow more of these kelp varieties to support the ultimate restoration of giant kelp forests. In addition, Google Cloud's AI platform, Vertex AI, and Google Earth Engine are being used to locate and analyse kelp forests in more than 7,000km² of satellite imagery for the first time. This helps provide researchers with a complete picture of these ecosystems so that they can create an efficient, reliable and long-term monitoring strategy.

Health

Al empowers researchers to make data-driven decisions, revealing previously inaccessible insights and accelerating the pace of medical innovation for positive healthcare outcomes.

New AI applications can enable customised healthcare for older Australians with complex health needs, including developing new listening and communications technologies and helping seniors live in their homes independently.

For several decades, Australia has led the way in building more accessible hearing technology. This is represented by the role of the <u>National Acoustic</u> <u>Laboratories</u> (NAL) in setting global standards to assess hearing impairment, developing hearing healthcare innovations and the most widely used prescription software by audiologists globally today.





Google is <u>collaborating</u> with five organisations across healthcare service delivery, research and technology sectors - <u>Cochlear</u>, <u>Macquarie University Hearing</u>, <u>National Acoustic Laboratories</u> (NAL), <u>NextSense</u> and <u>The Shepherd Centre</u> - to explore AI solutions to better identify, categorise and segregate sound sources. Our first project seeks to personalise hearing models to better address individual listening needs to enhance hearing aids and other listening devices. This technology could be particularly beneficial for people using listening devices in complex listening environments – such as busy restaurants, group brainstorms or live orchestral performances – dramatically improving quality of engagement and quality of life.

Al is assisting older Australians to live independently for longer. Aged services provider <u>Feros Care</u> used Google Assistant technology in its smart home installations to provide its in-home care clients with more control at home. Using voice commands enabled by the Google Assistant plugin, seniors can self-manage their appointments and other important aspects of their aged care. This also reduced their reliance on the call centre by 20%.

The integration of AI into drug discovery and development has contributed to a "<u>revolutionary shift</u>" in the Australian pharmaceutical landscape. The University of New South Wales (UNSW) has <u>partnered</u> with Algorae Pharmaceuticals to develop an AI platform to create predictive models to repurpose existing drugs for new drug combinations with "<u>high precision and efficiency.</u>"

Culture

Al is unlocking new possibilities in preserving languages and culture for future generations. Australia's diverse First Nations communities altogether speak over <u>250</u> languages. With many First Nations languages endangered, Al can help preserve First Nations languages by accommodating significantly faster transcription. Google has previously <u>partnered</u> with researchers to develop machine learning models for twelve Australian First Nations languages, including Kunwok, Kriol, Mangarayi, Nakkara, Pitjantjatjara, Warlpiri, Wubuy, as well as Indigenous languages in the regions surrounding Australia - such as Abui (spoken in Indonesia) and Cook Islands Maori (an East Polynesian language).





While AI has the potential to help preserve First Nations languages, some First Nations languages also have the potential to help improve AI processes. Australian researchers have <u>found</u> that Jingulu, a First Nations language spoken by the Jingili people in the Northern Territory, can help solve complex AI questions. Jingulu's structure, with its reliance on three light verbs only, means that it can be easily translated into AI commands, which is useful for addressing some longstanding communication problems between humans and AI systems.

AI has also had a positive impact in unlocking new forms of creativity, enabling more people to become creators and turbo-charging the creator economy. Supporting the creator economy is central to the mission of YouTube in Australia. According to <u>Oxford</u> <u>Economics</u>, YouTube's creative ecosystem contributed over \$890 million to Australia's GDP in 2022, in addition to supporting more than 15K+ full-time equivalent jobs in Australia. According to a November 2023 survey conducted by Ipsos in Australia, 79% of creators believe AI could give them the opportunity to create content that would not have been possible without AI tools.

Economy

If fully harnessed and introduced responsibly, AI has the potential to significantly advance sustainable and inclusive economic growth in Australia. AI is vital to Australia's ambitions to revive its manufacturing sector, with the potential to drive increased productivity, raise economic growth, and create high-quality jobs. For example:

- Packserv, a leading Australian manufacturer of packaging machines for SMEs, is <u>using</u> AI to transform its factory floor. Packserv's AI-enabled packaging machinery helps it reduce downtime, increase efficiency and scale up its producing lines. Packserv is also providing local SMEs access to its equipment, <u>supporting</u> them to remain competitive against imported products.
- The Brisbane-based <u>Advanced Robotics for</u> <u>Manufacturing</u> (ARM) Hub is helping Australian manufacturers accelerate their AI uptake and harness AI's potential for productivity gains. Previously, the ARM Hub <u>supported</u> Verton Technologies, an Australian manufacturer





of remote-controlled cranes, to grow from a start-up to become a high-value exporting business. At the ARM Hub Learning Factory, Verton has harnessed AI to deliver a remote-controlled system that safely and accurately orients the crane's load, securing a competitive advantage that has fuelled its international expansion.

A cornerstone of the Australian economy, the mining industry is embracing AI-driven changes and generating high-quality AI-related jobs across Australia. Al-enabled solutions in driver monitoring systems, predictive maintenance and resource exploration can improve the operational safety and productivity of mining. As Western Australia Data Science Innovation Hub director, Alex Jenkins, has said, "For Australia, in particular, if we can develop new ways to approach exploration, there is significant upside here because it will help us find new assets and new resources." For example: Australian mining equipment maker, Caterpillar, has worked with mining company, Champion Iron, to develop an AI-powered drill system. Using real-time data and AI, this remote-controlled electric drilling fleet is implemented to automate and optimise processes including drilling, loading, and hauling. It improves the operational productivity of mining practices while reducing energy use.

Al can also aid in the search for untapped mining reserves. By examining geological data patterns and incorporating historical mining data, Al algorithms can provide more precise estimates of mineral reserves. This helps mining companies make informed decisions regarding investment, production planning, and resource allocation, ultimately maximising the economic potential of mining projects. In South Australia, leveraging access to vast core samples of data, mining companies are using Al-driven algorithms to discover resources previously overlooked.

Al is also making Australia's agricultural sector more efficient by helping farmers meet the challenges of labour shortages and climate change. In Queensland, the ARC Industrial Transformation Research Hub for Driving Farming Productivity and Disease Prevention, led by Griffith University, is working with farmers to incorporate Al and other technologies into agricultural processes. For example:





- At Sunray Strawberries at Wamuran, Queensland, the DeepBerry automated monitoring system uses visual and infrared imaging to accurately detect ripeness and bruising, and can process over 7,000 punnets per hour. Testing has shown this system delivers higher accuracy and improved consistency compared to manual checking, while also alleviating pressure on the shrinking agricultural labour force.
- Treasury Wine Estates (TWE), an Australian wine making company, has used <u>predictive AI</u> to mitigate the impact of unpredictable weather. Using an AI-driven microclimate and harvesting platform, TWE is able to develop better scenario plans for the likelihood of extreme weather events.

Overall, AI is having an altogether transformational impact on a diverse range of Australian businesses – it is reshaping the way they engage with customers and build products, revolutionising their operations and improving productivity, as demonstrated by the following examples:

- Woolworths has long employed AI to assist with theft detection, customer service, and optimising aisle space.
- <u>Qantas, Big W and Woolworths</u> leverage AI to accelerate the hiring process and minimise costs.
- <u>Culture Amp</u> could save HR professionals hundreds of hours normally spent analysing employee feedback, meaning employers can act on workplace issues in a timely and decisive way.
- Canva is removing friction from the design experience by using Vertex AI to power its <u>Magic</u> <u>Design for Video</u>, helping users shorten editing steps while creating shareable and engaging videos in a matter of seconds.
- <u>Telstra</u> used generative AI to facilitate a conversation with Santa Claus in December 2023. It enabled its 14,500 payphones nationwide to call the North Pole, and children were able to have an engaging and memorable conversation with Santa, while protecting safety and privacy.





- <u>Suncorp</u> is using damage detection AI through inputs such as geospatial data and aerial imagery to detect building damage in assessing insurance claims.
- Fraud detection and safer banking practices are being facilitated by AI. <u>Commonwealth Bank</u> was the first bank globally to share its AI model to reduce technology-facilitated abuse.
- <u>Optus</u> is using Google Cloud AI to make it easier to route customer calls, cutting down customer wait times.
- Service sector businesses in sectors such as banking, travel, hospitality, education and health are making gains due to hyper-personalised offerings (<u>Macquarie Bank, tertiary institutes</u>, <u>IHG</u>), automated staff rostering (<u>Domino's</u>), and customer experience (<u>Suncorp</u>, Commonwealth Bank).





An Affirmative AI Policy Vision for Australia

Such examples of AI applications are only initial indications of what is possible. AI has the potential to significantly improve the lives of everyone across the country. But these benefits are not guaranteed. Unless people trust and understand the benefit in using the technology, it will not be adopted at scale, and only once scale is achieved can broader economic and societal benefits be realised.

The Australian Government has <u>identified</u> possibilities for AI to drive improvements in productivity across the Australian economy. It is worth considering Australia's role in the global AI value chain. As the Productivity Commission has <u>said</u>, Australia's comparative advantage is likely to lie in part in the range of opportunities for Australian businesses to add value through applying models to use cases that generate economic growth and benefit ordinary Australians. If Australia is to fully harness AI's transformative potential, it must pursue a comprehensive strategy with a consistent focus on that objective.

Three key recommendations to enable Australia to harness AI responsibly and to realise its potential:



Invest in Innovation Infrastructure - meeting the moment of this technology by investing in AI research and development, access to and quality of digital infrastructure and compute capacity, and providing a balanced regulatory environment to convert ideas and data into new discoveries, products and services.



Build an AI-ready Workforce - investing in people to make sure that they can use and benefit from AI, from students to workers, and from small businesses to traditional industries.

Promote Inclusive Adoption and Accessibility - harnessing AI across governments and all sectors of
 the society to address major societal and economic challenges and ensure the benefits of AI are widely
 shared, while adopting a regulatory framework that supports a healthy AI ecosystem. Australia's large
 SMB base makes equipping Australian small businesses with the tools to adopt AI particularly important.

All of this will require collaboration and deep engagement between the Government, industry and civil society. We will only succeed by working together.

Investing in Innovation Infrastructure

Countries have historically excelled when they support technological change and harness it to improve living standards. Australia has <u>identified</u> AI as a critical technology in the national interest. The Productivity Commission's latest 5-year <u>Productivity Inquiry report</u> listed AI among the transformative technologies that can enable productivity growth. For Australia to harness the benefits of AI, it is also important to have the policy conditions in place that allow AI to be effectively and safely built and developed and applied across the country.

Investing in R&D and AI Infrastructure

Governments and the private sector have a critical role to play in investing in R&D and AI infrastructure, including cloud infrastructure, compute capacity, and data, to ensure that researchers, technologists, and businesses have access to the tools needed to research, build and deploy AI.

There is no one size fits all AI investment strategy that will work for all governments, but one basic formula for success is to invest in basic and applied research technologies (such as graphics processing units and supercomputers) at a national or regional level - and then to put in place policies encouraging private sector innovation and product development that build on top of these foundational initiatives. Such a model can drive innovation leadership by creating a sense of shared responsibility between the public and private sectors for developing AI and other emerging technologies.

As one example, the <u>National AI Centre</u>, funded by the Australian Government, brings together government, industry and research partners to accelerate AI innovation and adoption in Australia. As the first foundation partner and the only industry <u>partner</u> to date of the National AI Centre, Google is committed to helping accelerate Australia's AI ecosystem and talent development.

To build a strong technical infrastructure for AI innovation in Australia, investing in AI computing capacity is essential. As AI becomes more



complex, increased computing power will be needed to train and run AI models. With government support, high-performance computing national facilities like the Pawsey Supercomputing Centre (PSC) in Perth have developed powerful <u>supercomputers</u>. Governments around the world are also considering their investment in AI compute capacity: the UK Government last year <u>announced</u> an investment of £500 million (approximately AUD 948 million) in compute for AI over the next two years; Singapore recently <u>announced</u> investments of up to S\$500 million (approximately AUD 559 million) of investment in compute resources.

In 2021, Google unveiled the Digital Future Initiative (DFI) - a \$1 billion investment over five years focused on supporting new, highquality jobs, accelerating innovation and giving Australians the tools required to plan for their digital future. The initiative includes investments in infrastructure, a new AI-focused research centre and additional research partnerships. It was independently estimated that the DFI would provide a \$1.3 billion boost to Australia's GDP and support 6,500 additional jobs across the economy. The DFI has since supported our first ever local AI research hub in Sydney and quantum computing research partnerships with Australian universities and scientists, along with numerous other projects.

The pace of AI development and adoption also depends on enabling factors such as connectivity and cloud adoption. Google is dedicated to helping provide the supportive infrastructure necessary to drive Australia's digital future, with two <u>Google Cloud</u> regions in Sydney and Melbourne and Cloud points of presence in Perth, Canberra, and Brisbane ensuring the delivery of geographically distributed and secure infrastructure to cloud customers across Australia. Driving excellence in AI research and development is also critical for Australia to remain competitive amidst rapidly expanding AI capabilities internationally. Australia has a strong foundation on which to build, with world-leading research institutions working on Al such as the <u>CSIRO</u> and the <u>Australian Artificial</u> <u>Intelligence Institute</u> (AAII) at the University of Technology Sydney. Academia and industry need to work closely together to boost Australian AI research capability to create globally competitive AI solutions. The Kingston AI Group (formed by 14 leading researchers and innovators in AI in Australia) has <u>called for</u> a more coordinated network of AI research and innovation centres across the country.

Globally, numerous governments are seeking to work with industry and academia to advance AI research. The <u>United States' National Artificial</u> <u>Intelligence Research Resource</u> (NAIRR), for example, is a pilot that brings together computational, data, software, model, training and user support resources in support of US AI-related research. The UK Government has established competitive grant processes for <u>AI hubs</u> for scientific and engineering research, involving co-creation between AI developers and those organizations applying AI innovation to real-world problems.

Access to data is a key enabling factor for AI research and application. In particular, maintaining access to open government data sets will help researchers and companies develop innovative AI solutions that address local and regional needs, while ensuring robust privacy and security protections. The Australian Government has <u>facilitated</u> open access to data, including providing access to government data sets under <u>Creative Commons licences</u>. Maintaining access to high-quality government datasets is vital for enabling AI innovation to benefit society.

A novel approach which the Australian Government could consider supporting globally to augment local AI research could be the establishment of a Global Resource for AI Research (GRAIR) that would pool financial, technical and data resources across borders to help countries overcome resource constraints. If successful, the initiative could make AI accessible to many more of the world's entrepreneurs and scientists, enabling them to propel the technology forward, ensure it is more representative, and accelerate discoveries in other fields. Public-private partnerships may be effective in accelerating research and creating shared resources across the AI ecosystem. Both governments and industry can help support academic and civil society researchers through programs like tech transfer frameworks, fellowships, and direct support for research. Australia's Cooperative Research Centres (CRCs), for example, have supported public-private partnerships and <u>advocated</u> a collaborative approach to AI governance. Public-private initiatives to support the creation of impactful AI use cases for businesses should also be encouraged, with the <u>AI Sprint</u> between the National AI Centre, Stone & Chalk (Australia's largest innovation community), and Google Cloud as a positive model. These efforts must include a broad range of participants to reflect the geographic, linguistic and cultural diversity of Australian society.

The establishment of a Global Resource for AI Research (GRAIR)

Inspired by successful models such as the European Centre for Nuclear Research (CERN) and the International Space Station (ISS), the GRAIR would be a collaboratively governed, multinational AI research infrastructure and research consortium working to ensure ethical development, equitable access, and the pursuit of AI applications that foster local innovation. A collective computing resource such as the GRAIR would also help to address concerns about AI's carbon footprint, as it would reduce duplicative efforts and environmental impact.

The proposed GRAIR would comprise three key elements. A cloud-hosted Global Dataset Library would feature diverse, curated, high-quality datasets, with continuous programs addressing representational gaps. A Distributed Compute Network would span data centres across multiple countries, particularly those currently lacking dedicated AI infrastructure, providing researchers worldwide with essential computational resources. An Operations Team would manage infrastructure, outreach programs and user initiatives to ensure smooth functioning of the resource.

A GRAIR could undertake a range of activities, depending on the priorities of its members, including:

- Issue periodic requests for proposals that would allow researchers and organisations to apply for compute time.
- Solicit proposals focused on creating high-quality datasets where gaps exist, for example, data related to low-resource languages and cultural knowledge.
- Support in-person or remote safety testing, evaluations, and red-teaming on AI models for locally relevant characteristics and development of associated benchmarks and testing suites.
- Support countries at different levels of development in building up domestic AI workforce capabilities, including application developers, tech entrepreneurs and researchers, through training and accreditation programs.

Al Sprint

Australia's AI Sprint is a three-month competitive program designed to provide startups and entrepreneurs with access to resources, tools, and the expert support needed to rapidly refine AI-powered ideas into demonstration-ready prototypes. It is a collaboration between the National AI Centre (coordinated by Australia's national science agency, CSIRO), Australia's largest innovation community, Stone & Chalk, and Google Cloud.

Commencing in April 2024, AI Sprint will provide \$500,000 in research and development support from selected Australian research institutes. Initiatives like the AI Sprint are important for unlocking AI's potential to solve real-world problems and strengthen Australia's AI ecosystem. Google Cloud will provide AI technical expertise to participants.

Pro-Innovation Legal Frameworks

Al is too important not to regulate - and too important not to regulate well. At this moment, the challenge faced by all policymakers is how to govern AI in a way that mitigates risks and potential harms without disproportionately inhibiting innovation that benefits society and unlocks economic prosperity. There is a risk that misaligned and fragmented regulatory approaches will block innovators and governments around the world from harnessing trustworthy and beneficial AI applications to strengthen economies, find cures for cancer, and ensure longer, better lives for billions of people. In Australia, there is an active debate over how to ensure the safe and responsible deployment of AI. The Australian Government's <u>interim response</u> to the consultation on the Safe and Responsible Use of AI affirms a risk-based approach that emphasises coordinating with international partners. The Government has also convened an <u>AI Expert Group</u> to guide discussions on the optimal approach for Australia to regulate AI. Google believes that building and optimising policy frameworks could unlock trust in AI and AI-derived opportunities in Australia.

Policymakers need to consider four fundamental policies to ensure AI researchers and innovators are empowered to convert ideas and data into new discoveries, products and services.

1. Cohesive government AI policy: Given the cross-cutting nature of AI, it is essential that governments avoid siloed approaches to AI regulation. While we need case-specific answers for the unique issues of each sector, it will often be true that a regulatory debate on an issue like data will implicate multiple equities and interests within a government. AI technologies increasingly highlight areas of the law that require further examination. Australia's Government has indicated its intention to update legal frameworks on a range of issues, including privacy, copyright, online competition, anti-misinformation, and cybersecurity. Maintaining a cohesive approach will prove challenging. It is vital that Australia develops an interagency approach that effectively coordinates and balances the emerging AI-related work streams – leaving a critical element of AI policy to one agency, without weighing trade-offs, risks an overall AI strategy that is misaligned with the public's broader interests.

2. A fit-for-purpose copyright framework: The potential of AI raises important questions about how Australia as a society and economy wishes to benefit from, and lead innovations in this field. We support the <u>Productivity Commission</u> and Australian Law Reform Commission (ALRC)'s view that Australia needs a copyright framework that supports innovation and creativity.

Al-powered products and services are being created in other countries with copyright frameworks that are more balanced between promoting innovation and protecting creators' rights, such as the US, Singapore, and Japan. A copyright framework that supports innovation and R&D by permitting developers to train AI models on publicly available data is a strong predictor of whether a country will be a leader in local AI innovation. Updating Australia's copyright law to harness the potential of new technologies would ensure copyright owners are appropriately protected while not stifling innovation.

The Attorney General's establishment of the <u>Copyright and AI Reference Group and Steering</u> <u>Committee</u> with cross-sector industry stakeholders seeks to steer a balanced debate on AI-derived copyright challenges in Australia. This is vital to providing businesses with the legal certainty necessary to incorporate AI into their operations. Ultimately, the Australian Government will need to strike a balance between serving Australian society by enabling local AI innovation attuned to local values and needs, and protecting Australian creators and creative industries.

- **3.** Adopt a risk-based approach to AI regulation: This is crucial to provide clarity to developers, deployers, and regulatory agencies about which uses are disallowed, and to encourage alignment around addressing the most severe concerns related to AI. A risk-based approach also allows regulators to identify which parties (developers, deployers, or users) are most likely to have control over harm prevention and mitigation and therefore should be held accountable. The Australian Government's interim response to safe and responsible AI consultation signals a welcome emphasis on targeting safety guardrails at high-risk settings, while allowing the use of AI in low-risk settings to flourish largely unimpeded. As the government develops its position further, businesses will welcome clear and unambiguous definitions on what constitutes high-risk.
- 4. Encourage privacy and security by design principles: Policymakers should encourage privacy and security by design principles so that individuals' personal data is safeguarded, they are given appropriate notice and controls related to their personal data, and the outputs of AI systems protect individual privacy. Building guardrails for generative AI by testing for a wide range of safety and security risks is also crucial. At the same time, privacy frameworks should continue to preserve the ability to process publicly available data, while supporting privacy preserving technologies throughout AI systems.

Beyond these substantive areas, governments should also seek to obtain a clear view of the existing regulatory landscape by undertaking holistic audits of regulations relevant to Al across the ecosystem. As Australia's Productivity Commission <u>stated</u>, it is necessary to examine existing technology-neutral laws that already cover use of Al, such as consumer, competition, privacy and anti-discrimination laws. Such a review exercise will be helpful to identify both regulatory gaps and areas of regulatory overlap or inconsistency that can impede innovation. This initiative would

ensure that countries at all levels of development are working together to achieve major public objectives around health, scientific research, climate, cybersecurity, and economic growth. One initial partner for this alliance would be the US, which recently released a digital solidarity strategy focused on building AI with allies while combating "digital sovereignty and protectionism."



Supporting Cross-border Digital Flows and Interoperability

Given the cross-border nature of AI, enabling trade and investment frameworks will be essential for the development, deployment, and governance of AI. But it will also be critical for Australia to help update and modernise these frameworks for the AI era, including by working with like minded foreign partners on an AI Alliance.

One of the most meaningful steps that policymakers can take to support responsible AI is by committing to support trusted cross-border data flows. Data flows enhance the capability of partners to work together to ensure AI systems are trained on demographically and geographically diverse datasets, which helps mitigate potential bias in these systems and makes them more useful and relevant to users around the world. The Australian Government's <u>response</u> to the Privacy Act Review Report commits to establishing a mechanism for prescribing countries with substantially similar privacy laws, allowing for businesses to transfer data to those countries. Implementing this commitment will provide businesses with the certainty required to safely and securely transfer data in support of Al innovation.

Digital trade commitments that reflect countries' support for trusted cross-border data flows give much-needed certainty and enable the development of responsible AI. Australia has been an important advocate of free and open data flows, <u>recognising</u> that cross-border data flows provide growth opportunities for businesses and improved choice for consumers. It signed digital economy agreements that support cross-border data flows and international alignment of AI frameworks like the <u>Australia-Singapore Digital Economy Agreement</u>, in addition to continuously supporting discussions in the G20, WTO, and Indo-Pacific Economic Framework (IPEF) on further facilitating data flows.

It is important to continue building up key alliances on technology and AI. This is why we are calling for global leaders to renew their focus on strong digital rules that support on-going development and adoption of AI.

Australia has already distinguished itself through its <u>commitments</u> to working with global partners on shaping AI governance, building on the Bletchley Declaration at the first Global AI Safety Summit and the Global Partnership on Artificial Intelligence (GPAI). This includes, for example, bolstering the engagement of Australian experts in key international forums that develop AI technical standards.

There is now a chance for Australia to expand international alignment on AI by adopting an affirmative strategy to promote the development and deployment of AI with key foreign partners. This could take the form of an AI Opportunity Summit or Dialogue, or a new AI Opportunity Alliance. Through this alliance, Australia and its partners could agree to take on some of the biggest challenges and opportunities around AI, including: building up infrastructure and research capacity; ensuring access to AI skills and training; encouraging AI adoption by small businesses and traditional industries; and leveraging AI to make progress on the UN's sustainable development goals (e.g., flood forecasting, earthquake alerts, and food security).

Building an AI-ready Workforce

Realising Australia's leadership on AI will require an AI-ready workforce. A February 2023 CSIRO <u>report</u> reveals that 68% of Australian businesses have already implemented AI technologies, with a further 23% planning to implement AI in the next 12 months. However, Australia faces an AI skills gap. CSIRO <u>estimated</u> that Australian industry will need up to 161,000 new AI specialist workers by 2030. Also, the Australian Information Industry Association's (AIIA) 2023 <u>survey</u> finds that despite businesses' growing desire to hire AI skills, 56% believe AI skills are unavailable in Australia.

AI can also bring disruption, and will present unique challenges compared to prior waves of technology that will require new solutions. The question then becomes: how can Australian policymakers equip the workforce to harness AI - so that it empowers workers, helps them become more productive, bumps up their expertise level, and makes their skills valuable? And how can we mitigate any potential risks to the workforce through partnerships between governments, industry and civil society?

The Australian Government is <u>committed</u> to raising digital foundation skills across the workforce, and CSIRO's <u>Next Generation Graduates</u> <u>Program</u> is focused on addressing Australia's skills shortage in technologies. To build on this, Australia can undertake a comprehensive analysis of what AI means for worker skills. This can provide the basis for a holistic, whole-of-government response. Singapore's National <u>AI 2.0</u> <u>Strategy</u>, for example, focuses on the need to skill for different types of capability: AI Creators (top-tier AI talent), AI Practitioners (tech workers), and AI Users (enterprises and general workforce).

Google fully supports this process. <u>Google Career Certificates</u> are online courses that help upskill Australians and give them the tools to flourish in high-quality jobs. The most recent launch of the <u>AI Essentials</u> <u>Certificate</u>, built by Google experts in AI, allows Australians to get the essential skills they need in their work and career to benefit from the potential of AI. A consortium of Australian employers, including Australia Post, Woolworths Group, Canva, Optus, and IAG, are considering



certificate graduates for suitable roles within their organisations.

The Victorian Government's <u>Digital Jobs program</u> offers one potential model for skilling initiatives across Australia. It offers free training for up to 5,000 mid-career workers in a 12-week industry-based course in digital disciplines, including AI. Upon completion of the course, the participants are eligible for a 12-week paid job placement with a Victorian business. <u>Employers</u> receive a \$5,000 wage subsidy for each participant they take on.

Building an AI-empowered workforce will require a shared vision – and a shared responsibility – across three sets of stakeholders:

- Industry has a critical role to play in developing new skilling programs that focus on AI
 preparedness. To date, the <u>Grow with Google</u> program has offered digital skilling training to
 over 600,000 Australians, in addition to over 40,000 Australian small businesses during the
 pandemic. We are also continuing to update the <u>Google Career Certificates</u> programs to help
 learners in Australia to attain critical digital skills. But given the transformative impact of AI
 across all sectors of the economy, individual company efforts would be insufficient on their
 own companies will need to stand up new cross-sectoral AI training partnerships to ensure
 workers in all industries are ready to harness AI.
- 2. <u>Civil society, foundations, and academics</u> should drive new research to understand what has and hasn't worked in the past in terms of worker preparedness for new technologies, and then apply those insights to ensure lower-wage workers and rural or underserved communities are at the centre of AI workforce programmes. We commit to supporting this research through our <u>Digital Futures Initiative</u> and applying these insights to equip the Australian workforce for AI-enabled jobs of the future. To support a more diverse talent pipeline in Australia's technology sector, we have announced that we will provide 10,000 <u>scholarships</u> focused on women and First Nations Australians. Initiatives like the <u>Australian Digital Inclusion Alliance</u> (ADIA) work with business, government, academic, and community organisations to support inclusive digital upskilling.
- 3. Most importantly, <u>policymakers</u> must help scale up AI training programs so that they reach all communities, while building more effective "trampolines" to catch workers that are impacted by AI and reskill them so they can quickly bounce back into new and more sustainable jobs. Given Australia's uniquely large SME segment, supporting Australian SMEs in AI skilling is critical to ensuring the benefits of AI are shared right across the country. The <u>new free AI course</u> for SMEs, provided by The Institute of Applied Technology Digital (IATD) and National AI Centre (NAIC) and delivered through TAFE NSW, an Australian vocational education and training provider, provides a valuable example of the type of support required.

The goal across all of these efforts will be to ensure that AI democratises access to skills and expertise and creates a ladder of opportunity for workers from all backgrounds.

Modernising Skilling Programs for the AI Era

To tailor policy interventions, it will be important to understand how AI is both similar to and different from prior waves of technology. <u>Early research</u> indicates that generative AI may help up-level certain skills, enhance labour productivity, create new occupations, and democratise access to higher paid occupations. But because generative AI can automate non-routine cognitive tasks, it may impact a wider range of tasks and occupations than earlier technologies.

We are only now building our understanding of what kinds of new skills AI-enabled work will require. In Australia, Jobs and Skills Australia (JSA) is working to develop forward-looking analysis and offer independent advice on <u>improving</u> Australia's skills development, including in AI.

Some things are already known - including the importance of workers having basic AI literacy and how significantly human talents like critical thinking, cross-disciplinary problem-solving, effective collaboration and empathy are likely to increase in value. Industry and governments must adjust existing skilling programs to address those dynamics. But there are other open questions about Al's impact on work that will need further study, such as how AI can best be used to support re-skilling, and how to minimise the risk of "skill atrophy" as routine tasks that previously provided training opportunities for novice employees are increasingly automated. Companies, civil society, and policymakers will need to constantly evolve skilling programs to address these questions and manage these transitions.

Education and workforce training programs will become all the more important to help workers and learners apply AI to meet their goals. And this must extend beyond the secondary education system -AI requires a lifelong approach to education that equips all students and workers with foundational AI skills. TAFE NSW <u>offers</u> a variety of NSW government-funded AI training courses. In the UK, the Government has worked with a consortium of academic and policy institutes such as the Alan Turing Institute, to develop <u>guidance</u> aimed at helping employers and training providers to boost their employees' understanding of AI so they can use it safely. The guidance systematically maps the skills that different types of workers will need to confidently apply AI in workplace settings.

AI deployment in Australian education is advancing with a focus on safe and responsible use, as evidenced by the Australian <u>framework</u> for generative AI in Schools. The Australian Curriculum, Assessment and Reporting Authority (ACARA) has also updated the Australian Curriculum to include an <u>AI Curriculum</u> <u>connection</u> to equip educators in using generative AI. Meanwhile, there is scope to leverage the capabilities of the <u>Jobs and Skills Councils</u> (JSCs) - especially the Finance, Technology and Business JSC <u>Future Skills</u> <u>Organisation</u> (FSO) - to widen industry engagement and ensure Australia's vocational education and training (VET) system aligns with AI skills-based business needs.

Looking ahead, Australia will benefit from further cooperation between the Australian Government, industry and academia to update and adapt skilling programs across sectors, providing Australians with the confidence to thrive in an AI-powered economy.

Supporting Workers in Transition

Al is already helping to democratise <u>access</u> to skills and expertise such as coding, language and writing skills, and promises to enable more individuals to use productivity strategies that were once exclusively available to workers at the top of the income ladder.

But as proven by history, it's not inevitable that all workers will realize the economic benefits from technologies. A Future Skills Organisation <u>report</u> estimates that Australian occupations relying more heavily on cognitive skills are more likely to be impacted as generative AI systems are implemented. Additional <u>survey</u> data also suggests that many Australians see AI as a threat to jobs.

Australia needs to develop comprehensive strategies for helping workers who are impacted by technologies, and we need to modernise past programs such as trade adjustment assistance, which have been insufficient to prepare displaced workers for the occupations of the future. It is also important to recognise that AI programs must be tailored not only to job seekers, but to all workers who will need essential AI productivity skills.

Key steps that Australian policymakers can take to build an AI-empowered workforce and support workers in transition include:

- Encouraging companies that have developed career certificate and apprenticeship programs to work across sectors to develop more comprehensive cross-sectoral skilling and certificate programmes that reflect the full spectrum of skills needed for an AI-driven future.
- Committing to train new researchers within a short timeline (e.g., 18 months) to strengthen
 national AI research capabilities and increase the local supply of AI talent. The nationwide <u>Next</u>
 <u>Generation</u> Graduates Program provides 500 scholarships to postgraduate students to study
 and work with industry partners and address skills shortages in AI and emerging technologies.
 There is opportunity for these programs to be funded and facilitated at scale, while ensuring
 the adequate mentoring and support mechanisms are in place.
- Promoting access to world-class talent by promoting transparent, flexible immigration
 pathways for AI experts. Strengthening incentives to encourage AI specialists to remain in or
 relocate to Australia can help Australia's AI talent pool. These may include greater prioritisation
 of AI skills in the Government's Global Talent Independent Program (GTIP).
- Developing an AI adjustment assistance program to provide support for workers impacted by AI, with a tailored set of skilling options that can adapt to different worker needs in different geographics, and a focus on lower-wage workers and rural or underserved communities.

Promoting AI Accessibility and Adoption

In addition to building AI and preparing students and workers, Australia will benefit from ensuring that AI is applied and deployed in a universally accessible and useful way. We must harness AI to help solve real world problems – in government buildings, in hospitals, and at kitchen tables. To do this, we have identified three key goals:

- 1. Increase governmental adoption of AI to make people's lives easier and better and address major public priorities;
- 2. Ensure that small businesses and traditional industries are able to adopt AI applications; and
- 3. Regulate AI applications in a way that facilitates their adoption across different industries.

Government Adoption of AI

The Australian Government stands to gain from safely adopting AI in two ways. First, it can leverage AI to improve the delivery of services to citizens, which has the additional benefit of familiarising people with the underlying technologies and building trust that AI can be used in helpful ways. Second, by adopting AI, it can model a forward-looking approach for its domestic technology sector, and help other sectors understand the importance of AI. The scale of government deployment and investment can ultimately help catalyse a domestic AI ecosystem and, by requiring standards for AI system performance, can also help mature the guality and safety of commercial and enterprise AI products.

Australia has outlined a comprehensive approach to ensuring strong foundations for digital government. According to the <u>2023 OECD Digital</u> <u>Government Index</u>, Australia ranked fifth out of 38 countries in digital government, in addition to being the top-performer in Digital by design, which measures efforts to institutionalise digital government in the machinery of government.



Australia is committed to improving and maintaining public trust in its use of digital technologies by adopting AI in safe, ethical, and responsible ways across the Australian Public Service (APS). This is reflected in both the interim <u>guidance</u> on government use of generative AI by the Digital Transformation Agency (DTA) and the Department of Industry, Science and Resources (DISR) and the creation of the <u>AI in</u> <u>Government Taskforce</u>.

The Government has undertaken important steps, including <u>outlining</u> examples of practical use cases of generative AI to improve aspects of performance of public services - for example, using the technology to assist with data analysis and generating "first pass" content.

To identify the most beneficial uses of AI for their citizens, Australia will benefit from conducting comprehensive national AI opportunity assessments for public services, particularly in sectors such as health, education, transportation, and other services that most immediately impact people's lives. The first step in such assessments should be to examine existing solutions across Australia that are showing promise. One example might be the NSW Government's <u>investment</u> in AI to help reduce development application timeframes and deliver more housing. Investing in and scaling up these use cases could be one of the best near-term ways for governments to show progress on AI-enabled solutions and have a positive impact on people.

Finally, the Australian Government will need to build adequate AI expertise to effectively harness AI. Policymakers should build and scale up "in-house" AI skills for the Government IT workforce; Google took a similar step a few years ago requiring all software engineers to enrol in an internal machine-learning curriculum. Australia's <u>APS Digital Traineeship program</u> is a positive example of enhancing the digital and data literacy of APS employees through curated, scalable programs. The Government should also consider creative ways to bring in private-sector talent at leading Australian and global technology companies, such as AI Fellows modelled on the <u>US Presidential Innovation</u> <u>Fellow</u> program, the <u>UK's Government Digital Service</u> Fellowships or the <u>Schmidt Foundation Fellowship</u>.

Traditional Industries and Small Business

According to an NAIC-commissioned research report, Australian businesses have experienced average revenue growth of \$361,315 for each AI-enabled solution that they have implemented, regardless of which aspect of the business was targeted. Despite the promising economic results, as Chair of the Productivity Commission, Danielle Wood, has remarked, there is significant room for improvement on the adoption of AI and other advanced technologies in Australia. The Australian Government and AI developers should work together to develop proactive outreach strategies to traditional industries and Micro, Small & Medium Enterprises (SMEs) - who have much to gain in terms of their global competitiveness if they are guick to harness and deploy AI. The Council of Small Business Organisations Australia (COSBOA) has undertaken research to understand how AI can prove useful for small businesses.

The Australian Government has pledged significant <u>support</u> for businesses to integrate AI and quantum technologies, including funding for <u>AI Adopt centres</u> to help SMEs grow their business through AI. Meanwhile, CSIRO <u>research</u> has outlined how Australian businesses recognise AI's potential impact, but are nevertheless hesitating to adopt it. Many companies still <u>struggle to</u> translate promising AI ideas into actual value due to challenges in capabilities, talent, culture, governance, and processes.

The Australian Government should identify barriers to the deployment of AI in key sectors and industries. Research has identified key obstacles faced by Australian businesses in AI integration, including the AI skills gap, difficulty in sourcing full-service AI project support, and concerns over privacy, security, and data quality risks that AI introduces. These concerns underline the importance of fostering public trust that AI can be deployed safely and securely and public values in AI. To this end, the Productivity Commission has recommended that the Australian Government help build trust in the technology by leading as an example in AI procurement and use. By showcasing the Government's safe and effective use of AI in service delivery, this could promote business adoption for similar use cases.

To further address this AI implementation gap the Australian Government should build on existing work and:

- Identify priority national sectors that have the highest need and/or the lowest uptake of AI tools, such as the agriculture, manufacturing, healthcare, and energy sectors, and work with these sectors on "proof of concept" initiatives to model effective AI deployment.
- Give small businesses a "digital jumpstart" through new models of technical assistance and engagement, including digital coaches who can help businesses understand and leverage AI to capitalise on new opportunities.
- Improve access to capital, including through low-interest loan and grant programs designed to support Al-driven transformation. The Australian Government can build on its grant initiatives like the <u>AI Adopt Program</u> (AIAP). Singapore's <u>Infocomm Media Development Authority</u> (IMDA) recently announced a plan to provide funding support to up to 300 SMEs to trial generative AI enterprise solutions developed by IMDA.
- Target AI training resources towards small businesses and traditional industries in underserved communities to build confidence and competency. In March 2024, the NAIC announced that it is offering free AI micro-skills courses to Australian SME business owners. Similar measures focused on funding, developing and recognising AI micro-credentials will complement Australia's existing educational framework, but also facilitate a lifelong approach to AI upskilling.

Enabling Regulation

The Australian Government has recognised that its regulatory frameworks must empower and not frustrate Australian enterprises, including SMEs and traditional industries, as they seek to adopt AI. Australian regulators should further consider what approaches will facilitate the adoption of AI, including adoption by SMEs with fewer resources. Any AI regulation should therefore be proportionate, risk-based and focused on applications, recognising that AI is a general purpose technology. Regulatory requirements should be calibrated to the particular risk and use case to avoid excessively inhibiting lowrisk AI innovation.

Australia will benefit from two streams of regulatory actions: firstly, ensuring that underlying regulatory regimes such as those relating to intellectual property facilitate AI innovation; and secondly, providing appropriate regulations to govern AI tools once they are developed. The Productivity Commission has <u>highlighted</u> the importance of providing regulatory certainty for businesses, suggesting this is most often achieved with a commitment to introduce new regulation only if and when existing regulation was demonstrated to be inadequate. Regulatory requirements should be calibrated to the particular risk and use case so as to enable broad adoption and deployment of AI by SMEs.

Australia can play an important role in promoting the use of common technical standards. Common standards mean that where a SMEs is required to show its compliance with a regulation, it can do so by showing adherence to the common standard, rather than having to meet a bespoke requirement. It will be beneficial for the Government to maintain its engagement with international standards bodies focused on the responsible development of AI systems, in particular the ISO.

Conclusion

As the Australian Government looks to realise the potential of AI technologies to serve Australian society, and increase the public's trust in AI, it has a critical role to play in developing AI policy frameworks whereby safety, security, innovation, and opportunity are addressed cohesively. We look forward to partnering with the Australian Government, industry, and civil society to build an AI-driven digital future that works for everyone.