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# Policy Brief: Artificial Intelligence in Australia

Surveying the Policy Challenges Posed by Artificial Intelligence in Australia

GovConnex

# Contents

# Executive summary

## About this paper

This GovConnex brief focuses on the current and emerging policy challenges posed by artificial intelligence (AI) in Australia. It aims to inform industry leaders and their government relations and compliance teams about key political, policy and regulatory challenges.

We provide an overview of the current regulatory and policy landscape, the direction of travel for future regulation and policy development, and identify key risks and opportunities over the horizon flowing from AI's rapid evolution for Australian democracy, public service delivery, productivity, the labour force, and the environment.

## Key findings

- The Commonwealth has so far adopted a **voluntary, principles based approach to AI regulation and policy development**, exemplified by the *Voluntary AI Safety Standard* and the *AI Ethics Principles*. Public sector applications of AI across both federal and sub-national levels are being guided under the rubric of the *National framework for the assurance of artificial intelligence in government*.
- Reflecting an absence of overarching, mandatory AI regulation, the Commonwealth has proposed and sought stakeholder feedback on ***10 mandatory guardrails for 'high-risk' AI applications***. This approach aims to facilitate ongoing AI development while managing key risks throughout the AI development and deployment lifecycle. Alongside this regulatory approach, the Commonwealth and state and territory governments are cautiously promoting AI development and use in the private and public sector through various innovation, industry and skills policy initiatives.
- The ongoing, rapid evolution of AI technologies presents a diversity of policy risks and opportunities for government and the private sector. We focus here on the emergent issues for: **Australian democracy, politics and public service delivery**; **workforce productivity and the labour market**; and the **environment**.

## The GovConnex advantage

GovConnex offers tools to monitor legislative and regulatory changes, committee discussions, and opportunities for consultation, ensuring government relations professionals remain informed and proactive in engaging policymakers.

*Note: This is intended as a high-level overview relevant to artificial intelligence. It is not exhaustive and is not tailored to the commercial circumstances of any one company. It should not be relied upon for commercial or legal decision-making.*

# Current regulatory & policy landscape

## Federal

At the national level, the Commonwealth Government has so far adopted a voluntary, principles based approach to general AI regulation that aims to foster innovation while minimising key risks. The focus has primarily been on providing high-level guidance and recommendations for organisations on the safe and ethical use of AI.

With regard to government use of AI, the Commonwealth has led a national process with the states and territories aiming to establish a consistent approach to regulation and assurance across jurisdictions. The Commonwealth has also developed detailed policy and guidance on how most federal public service agencies should use AI tools in their work.

Private and public sector AI applications are also subject to various technology-neutral forms of regulation, such as privacy, consumer and anti-discrimination law.

**Appendix A** provides a summary of current regulatory and policy frameworks at the federal level, as well as existing technology-neutral regulation relevant to AI..

## States and territories

Each state and territory government has also adopted policy and regulation on how their agencies should use AI tools, with a focus on generative AI. The approaches between sub-national jurisdictions have been relatively consistent, informed by the National framework for the assurance of artificial intelligence in government. Each policy takes a principles-based approach, guiding agencies on how to best harness AI tools safely and while minimising risks.

**Appendix B** provides a summary of current regulatory and policy frameworks adopted by state and territory governments.

## Extra-territorial

Australian organisations with a connection to foreign jurisdictions (e.g., through digital trade in goods or services) may also be subject to their regulatory and policy approaches. Australian businesses, for instance, need to consider how their operations and products might be affected by the divergent approaches of influential foreign jurisdictions. While major trade and investment partners such as the United Kingdom, United States and New Zealand have tended to adopt principles-based, pro-innovation approaches, by contrast the European Union has focused more on legally-binding, risk based regulation.

## Key gaps

The most obvious gap in the current Australian landscape is the absence of overarching or standalone AI regulation at the national level that deals with the technology in a comprehensive way and that mandatorily applies to both public and private sector applications.

Beyond this, some specific domains of regulation that are currently technology-neutral could also benefit from AI-specific amendments. For instance, given the high impact of AI on personal data and

labour markets, the *Privacy Act* and the *Fair Work Act* could be updated with dedicated AI provisions.

# Ongoing policy directions

## Regulating high-risk applications

The Commonwealth Government has indicated an intention to regulate 'high-risk' applications of AI, reflecting the finding that Australia's current regulatory system is 'not fit for purpose to respond to the distinct risks that AI poses'. In September 2024, the Department of Industry, Science and Resources published 10 proposed mandatory guardrails that would reduce the likelihood of harms materialising throughout the AI lifecycle from development to deployment of AI systems. These would apply to public and private sector applications.

### Defining 'high-risk'

The proposed approach creates two categories of 'high-risk' AI applications:

1. **High-risk AI based on intended and foreseeable uses**: 6 principles are proposed for determining whether an AI system should be designated as 'high-risk' due to its use:
    a. Risk of adverse impacts to an individual's rights recognised in Australian human rights law without justification, in addition to Australia's international human rights law obligations.
    b. Risk of adverse impacts to an individual's physical or mental health or safety.
    c. Risk of adverse legal effects, defamation or similarly significant effects on an individual.
    d. Risk of adverse impacts to groups of individuals or collective rights of cultural groups.
    e. Risk of adverse impacts to the broader Australian economy, society, environment and rule of law.
    f. Severity and extent of those adverse impacts outlined in principles (a) to (e).
2. **High-risk general-purpose AI**.

### Proposed mandatory guardrails

The proposed guardrails are intended to apply across the lifecycle of an AI system and have been designed to be flexible and adaptable given the ever-evolving nature of the technology and the enormous diversity of possible applications. The guardrails focus on testing of systems, transparency in their development and use, and accountability for governing and managing their risks.

The guardrails would require organisations that develop or deploy high-risk AI systems to:

1. Establish, implement and publish an accountability process including governance, internal capability and a strategy for regulatory compliance.
2. Establish and implement a risk management process to identify and mitigate risks.
3. Protect AI systems, and implement data governance measures to manage data quality and provenance.
4. Test AI models and systems to evaluate model performance and monitor the system once deployed.
5. Enable human control or intervention in an AI system to achieve meaningful human oversight.

6. Inform end-users regarding AI-enabled decisions, interactions with AI and AI-generated content.
7. Establish processes for people impacted by AI systems to challenge use or outcomes.
8. Be transparent with other organisations across the AI supply chain about data, models and systems to help them effectively address risks.
9. Keep and maintain records to allow third parties to assess compliance with guardrails.
10. Undertake conformity assessments to demonstrate and certify compliance with the guardrails.

### Regulatory approach

The Commonwealth has proposed three options for implementing the mandatory guidelines:

1. **Domain specific approach**: adopting the guardrails within existing regulatory frameworks as needed. Reform of existing regulatory frameworks to implement the guardrails on a sector-by-sector basis.
2. **A framework approach**: Introducing new framework legislation to adapt existing regulatory frameworks across the economy. Provide definitions, thresholds and guardrails in one legislative instrument, while relying on amendments to existing regulatory frameworks to accommodate enforcement via existing regulators.
3. **Whole of economy approach**: Introducing a new cross-economy AI-specific Act (for example, an Australian AI Act). Provides the definitions, thresholds and guardrails in one piece of legislation, as well as targeted mechanisms for enforcement and monitoring.

In addition, existing technology-neutral regulation would be updated to clarify its application to AI and ensure consistency with the guardrails.

### Next steps

The Commonwealth is currently considering how it will take the guardrails approach forward based on stakeholder feedback and consultation. With the Albanese Government returned in the May 2025 election, this approach to regulation will likely continue.

## Supporting innovation

Recognising the economic potential in AI through innovation and productivity gains, the Commonwealth has developed an array of innovation, industry and skills policy initiatives. The Commonwealth estimates that generative AI alone could contribute $45-115 billion to the Australian economy. AI is identified in the Commonwealth's Critical Technologies Statement as a focus area for the national interest given its impact on economic prosperity, national security and social cohesion. Similarly, the National Reconstruction Fund (NRF) identifies AI technologies as a priority for investment to support Australia's industrial capability.

Specific federal initiatives include:

- Establishing the **National Artificial Intelligence Centre** to coordinate Australia's AI expertise and capabilities to address barriers for small and medium enterprises.
- Supporting R&D in AI industries under the **Research & Development Tax Incentive**.
- $1 billion in the **National Reconstruction Fund** (NRF) for critical tech companies.
- $392 million in the **Industry Growth Program** for SMEs undertaking commercialisation or growth projects in NRF priority areas.

- $17 million for four new centres under the **AI Adopt Program** giving SMEs support and training about using AI to improve their business.
- $500,000 of R&D support for winners of the **AI Sprint**, a program for startups and entrepreneurs to develop AI solutions.
- **Next Generation Graduates Program** to attract and train AI and emerging tech specialists.
- Creating the **AI Impact Navigator** which provides a platform for companies to assess and report on the impact of their AI use in order to communicate and discuss what is working and what their AI impact is.

State governments are also supporting AI development and deployment through their own industry and skills policies. For instance, the 2024 NSW Industry Policy identifies AI as a critical enabler of innovation. Other sub-national initiatives to boost AI-related innovation include:

- Victoria announced an accelerator program to scale-up AI companies in 2021.
- Queensland AI Hub supports businesses to use AI through education, programs and events.
- South Australia has invested $6 million to support AI R&D at the Australian Institute for Machine Learning.
- Tasmania has proposed positioning the state as a hub for R&D in advanced technologies including AI.

### Promoting public sector applications

Recognising the opportunities to enhance service delivery, improve the quality of policy advice and realise productivity gains in the public sector, Australian governments are also cautiously promoting the use of AI within their departments and agencies.

The Commonwealth's Data and Digital Government Strategy identified AI as a key emerging tool for enhancing the quality of government services, boosting efficiency, and improving the quality of decision-making based on evidence. So far, the government has taken an iterative approach to deploying AI across its agencies, permitting limited and controlled tests to measure productivity and work quality improvements while minimising risks. For instance, in 2024, some federal agencies piloted the use of Microsoft 365 Copilot in their daily tasks.

State and territory governments have focused mainly on assurance and risk mitigation around public sector applications of AI amidst limited scale implementation of AI tools. Targeted initiatives to promote AI use in government include:

- NSW and South Australia are trialling AI to improve the speed and ease of their planning approvals process.
- Victoria has commissioned an inquiry into the potential for use of AI technologies in government and across the state economy.
- Western Australia has trialled the use of AI tools in schools to reduce administrative workloads of teachers.

## Emerging policy risks & opportunities

The ongoing, rapid evolution of AI technologies - combined with a growing array of possible applications - means there are a wide range of emergent risks and opportunities that both the public and private sectors must continue to consider and manage. The central tension lies between effectively and preemptively managing risks while also retaining enough space and support for

innovative applications of AI that boost productivity and enhance democratic institutions. Below we consider three of the major areas of evolving risks and opportunities.

## Democracy, politics and public service delivery

### Australian democracy

AI has profound implications for democratic integrity and civic engagement. Generative AI enables the rapid creation and dissemination of misleading or false information (including deep fakes) posing a threat to authentic and informed public discourse and free elections. This erosion of trust is compounded by the spread of AI-generated disinformation through social media algorithms that prioritise engagement over accuracy. The ease of creating such content could be exploited by malicious actors, including foreign entities, to disrupt electoral processes or undermine social cohesion, as demonstrated by recent elections in Slovakia, India and the United States.

However, AI tools also offer opportunities to strengthen democratic discourse and processes. It can simplify complex political information, making civic discourse more accessible, and help translate content into multiple languages to improve inclusivity. AI systems could also be harnessed to improve voter access through digital platforms and enhance the cybersecurity of electoral infrastructure. Moreover, well-designed civic algorithms could promote exposure to diverse views, reduce polarisation, and facilitate constructive public dialogue.

The key policy challenge for lawmakers and regulators, especially the Australian Electoral Commission, is to ensure that AI supports, rather than undermines, democratic principles including transparency, accountability, pluralism, and fair elections. It is likely that ongoing policy and regulatory reform will be required to provide the legislative and technical capabilities for public authorities to meet this challenge effectively.

### Australian politics

In the political domain, AI amplifies both strategic communication and manipulation. Political actors can use AI to target voters through psychographic profiling that segments voters into population groups based on attitudes and characteristics, thereby potentially skewing public perception and democratic choice. AI-generated synthetic content can also be used to harass political figures, especially women and other minority groups, reinforcing existing forms of marginalisation from political participation. There are also concerns about algorithmic bias influencing political narratives, either unintentionally or through the deliberate manipulation of data, which can sway public opinion.

AI does, however, have the potential to positively reshape democratic politics. It can support deeper engagement with voters by, for instance, summarising public sentiment, moderating digital forums to foster civil discourse, and translating messages into multiple languages. Political transparency could be enhanced by AI tools that monitor and analyse political donations or detect misinformation trends.

### Government service delivery

AI has significant potential to improve efficiency, responsiveness, and personalisation in the delivery of public services. AI technologies are already deployed in areas such as fraud detection, document processing, and service chatbots. Looking ahead, AI could help governments deliver more tailored services, meet rising public expectations, and manage increased demand from an ageing population.

However, trust in AI-enabled public services hinges on integrity, transparency, and empathy. The Robodebt scandal under the former Coalition Government illustrates how flawed automation can

cause systemic harm. If AI systems are perceived as opaque, biased, or unaccountable, public trust can quickly erode. Concerns about bias in decision-making, privacy violations, and the dehumanisation of services also underscore the need for careful design and implementation.

## Workforce productivity and labour market

AI offers significant potential for improving productivity across Australian industries. According to PwC, sectors highly exposed to AI are experiencing productivity growth nearly 4.8 times higher than less affected sectors. Meanwhile, McKinsey estimates generative AI could add between $170 billion and $600 billion to Australia's GDP by 2030. AI boosts productivity through both augmentation (assisting workers with complex tasks) and automation (replacing repetitive or cognitively simple work). For example, in healthcare, AI has streamlined clinical documentation and patient monitoring, while in finance, it can assist with risk analysis and fraud detection.

In boosting productivity, however, AI is also driving labour market disruption. McKinsey estimates that by 2030, up to 1.3 million Australian workers (9% of the workforce) may need to transition to new occupations, especially from shrinking sectors such as office support, retail, and food services. Meanwhile, the Social Policy Group warns that if AI adoption continues at its current pace, up to 33% of Australian workers could face a period of unemployment by 2030. Layoffs will affect both low-income roles and traditionally secure, high-income professional jobs.

AI adoption is particularly challenging for SMEs, which often lack the agility and capital to scale AI solutions. This dynamic may result in SME bankruptcies and job losses in consumer-dependent industries like hospitality and retail. AI has also accelerated casualisation and greater workplace surveillance. AI-driven rostering, recruitment and monitoring can improve workforce planning, but can also negatively affect job security, particularly for women and people in casual roles.

To mitigate negative effects and capitalise on AI's potential, both the public and private sectors are pursuing various strategies that seek to balance upskilling and workforce transition with protecting workers and promoting equitable growth.

- **Workforce reskilling and upskilling**: There will be growing demand for social, emotional, and digital skills. Jobs requiring STEM and tertiary qualifications are also expected to grow, while those reliant on basic cognitive skills will decline. Skills policies and private sector investments in upskilling will need to evolve to meet these new demands.
- **Creating new AI-enabled roles**: AI displaces some jobs but also creates new ones. Roles in AI development, machine learning, and data analytics are growing, often with wage premiums. If possible, displaced workers should be given access to training pathways to benefit from such opportunities.
- **Focusing on SMEs:** Addressing the disproportionate burden on SMEs by facilitating access to affordable AI tools and upskilling support.
- **Inclusive labour and industry policies:** Governments are increasingly cognisant of the economic and political imperatives to manage the social consequences of technology-driven economic disruptions, including from AI. Consultation with affected workers and long-term planning for their transition to updated or new roles is critical.

## Environment

AI's most pressing environmental impact is its energy intensity. The development and deployment of large AI models (particularly generative models such as ChatGPT) require enormous computational power, which is predominantly delivered via data centres. These facilities may account for 8-15% of

Australia's energy consumption by 2030. This energy demand translates directly into higher greenhouse gas emissions in an economy, such as Australia, where fossil fuels remain a significant energy source. Although tech companies including Google and Microsoft are shifting toward renewable sources, the carbon footprint of AI-related data centre operations continues to grow (some estimates suggest AI could contribute up to 14% of global emissions by 2040).

Water use is another serious concern. Data centres require vast quantities of water for cooling, with estimates showing that each kilowatt-hour of AI-related computing can consume between 1.8 and 12 litres of water. In Australia's drought-prone environment, this raises concerns about competition between industrial and public water needs. Additionally, AI infrastructure contributes to land use pressures and resource depletion. The expansion of data centres and mining for critical minerals like lithium not only affect land availability but could also contribute to habitat destruction and e-waste generation if not properly managed.

Australia is increasingly recognising the need to address such environmental consequences. Governments, industry, and researchers are implementing a range of strategies, including:

- **Transitioning to renewable energy-powered data centres**: A growing number of Australian data centres are pursuing renewable energy solutions to power AI workloads. For instance, Equinix has secured a 151 MW Power Purchase Agreement (PPA) with clean energy provider TagEnergy to supply its Australian operations. Similar efforts are underway in Singapore with investments in offshore solar farms and energy imports to offset data centre loads.
- **Implementing energy-efficient infrastructure and operations**: Innovations such as grid-interactive data centres and waste heat recovery systems are being implemented to reduce net energy use and feed energy back into the grid. For example, Microsoft is applying a 'sustainability-by-design' approach, including using low-carbon construction materials and committing to be carbon negative by 2030.
- **Improving computing efficiency and supporting smaller AI models**: There is increasing emphasis on the adoption of small language models (SLMs) that are less energy- and data-intensive than their large-scale counterparts.
- **Developing measurement standards and reporting frameworks**: Australia currently lacks robust reporting mechanisms for AI-related environmental impacts. International examples such as the proposed U.S. Artificial Intelligence Environmental Impacts Act offer models requiring companies to report AI-related emissions and undergo environmental audits
- **Embedding environmental considerations in AI regulation and procurement**: The Commonwealth Government's AI Ethics Framework and AI Assurance Framework include principles requiring public sector AI systems to promote environmental wellbeing. These frameworks recommend early stakeholder consultation and formal impact assessments as part of AI system development. The Environmentally Sustainable Procurement (ESP) Policy prioritises environmentally friendly products in public procurement processes.
- **Private sector leadership in emissions reduction**: Major AI firms operating in Australia have committed to carbon neutrality and are investing in energy-efficient infrastructure, such as proprietary chips and advanced cooling systems.

# Appendix A: Federal policy & regulation

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| **General AI policy and frameworks** | |
| Voluntary AI Safety Standard (2024) | • Voluntary set of 10 'guardrails' applying to all organisations throughout the AI supply chain.<br>• Aims to align with international standards in boosting transparency and accountability to mitigate risks while also facilitating innovation and productivity gains. |
| AI Ethics Principles (2019) | • Voluntary set of 8 principles designed for all organisations to consider in using AI systems.<br>• Principles cover: Human, societal and environmental wellbeing, human-centred values, fairness, privacy protection and security, reliability and safety, transparency and explainability, contestability, and accountability. |
| **Commonwealth Government use of AI** | |
| Policy for the responsible use of AI in government (2024) | • Applies to all Commonwealth Government departments and agencies, except the National Intelligence Community and the defence portfolio.<br>• Aims to provide a unified approach across government for safely and responsibly using AI while harnessing its benefits. Focuses on building public trust while remaining adaptive over time.<br>• Agencies must designate responsible officials and publish a transparency statement about their adoption of AI. |
| National framework for the assurance of artificial intelligence in government (2024) | • Joint framework between the federal, state and territory governments regarding the use of AI in government that aims to create a consistent approach across jurisdictions.<br>• Sets out 5 'cornerstones' for assurance practices by government: governance, data governance, a risk-based approach, standards, procurement.<br>• Sets out practices for governments to use in implementing the 8 AI Ethics Principles. |
| Pilot AI assurance framework (2024) | • Provides guidance to Commonwealth Government agencies participating in the Digital Transformation Agency's pilot that aims to build public confidence in government applications of AI. |
| Interim guidance on government use of public generative AI tools (2023) | • Provides provisional guidance to Commonwealth Government agencies on how its staff should use tools such as ChatGPT in their work. |
| **Technology-neutral regulation with relevance to AI applications** (non-exhaustive; both federal and sub-national) | |
| Directors' duties | Company directors owe duties to assess and govern organisational risks |
| Privacy laws | Organisations are required to protect personal information |
| Critical infrastructure and cybersecurity laws | Critical infrastructure is highly regulated around risk management. Cybersecurity obligations may apply in certain sectors |
| Negligence & civil liability | Organisations owe duties of care to take reasonable steps to avoid foreseeable harms to people |
| Online safety laws | Organisations must take action to minimise harms from online services |

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| Consumer law | Consumer law prohibits unfair practices including misleading and deceptive conduct, as well as unconscionable conduct and unfair data collection |
| Product liability | Organisations can be responsible for harms created by safety defects in products they create |
| Criminal law | Criminal liability can result from aiding or abetting the commission of a crime |
| Defamation laws | Organisations can be liable for participating in making defamatory material |
| Anti-discrimination law | Organisations should not exclude people on the basis of protected attributes |
| Copyright | Organisations must not infringe intellectual property rights |
| Workplace health & safety | Organisations need to adhere to workplace health and safety standards |
| Financial services | Financial services are strictly regulated around risk management |

# Appendix B: State & territory government policy & regulation

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| **NSW** | |
| AI Assessment Framework (2024) | Guides NSW Government agencies on the ethical development, deployment and use of AI technologies |
| AI Ethics Policy (2024) | Sets out 5 principles for best practice use of AI by NSW Government agencies |
| Generative AI: Basic Guidance | Guides NSW Government agencies on how they should and should not use generative AI tools such as ChatGPT in their work |
| **Victoria** | |
| Administrative Guideline for the safe and responsible use of Generative Artificial Intelligence in the Victorian Public Sector (2024) | Advises the Victorian Public Sector on how it should safely and responsibly use generative AI tools and technologies for official purposes |
| School operations policy on generative artificial intelligence (2024) | Sets out requirements that schools in Victoria must follow should they wish to use generative AI tools in their operations. |
| **Queensland** | |
| AI Governance Policy (2024) | Applies to Queensland Government agencies to ensure that planning for AI use is structured and consistent in approaches to transparency, accountability and risk. Requires agencies to use consistent and evidence-based processes and to establish governance arrangements consistent with ISO 38507 |

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| **South Australia** | |
| Guideline for the use of Generative Artificial Intelligence and Large Language Model Tools (2024) | Provides guidance to South Australian Government agencies in considering the safe use of AI technologies |
| **Western Australia** | |
| AI Policy and Assurance Framework (2024) | Outlines principles for WA Government use of AI tools and provides guidance on implementation |
| **Tasmania** | |
| Guidance for the use of artificial intelligence in Tasmanian Government (2024) | Provides guidance to Tasmanian Government agencies to ensure a baseline consistent approach to use of AI, in alignment with national level guidance on safety and ethical use |
| **Northern Territory** | |
| AI Assurance Framework (2024) | Provides guidance to NT Government agencies on ethical use and assessment of assurance of AI tools |
| **Australian Capital Territory** | |
| Draft AI Policy and Assurance Framework (2024) | Draft policy for ACT Government in alignment with national policies that helps agencies to manage risks, leverage AI as an asset and enhance transparency |

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