



**Actuaries
Institute.**

23 May 2025

Senator the Hon. Tim Ayres
Minister for Industry and Innovation, Minister for Science
PO Box 6100
Parliament House
CANBERRA ACT 2600

Email: [REDACTED]

Dear Minister,

Policy considerations for the Government

The Actuaries Institute (the Institute) wishes you and the Government continued success as you guide Australia's industries through technological and structural transformation to position our economy for future prosperity.

The Institute, as the peak professional body for actuaries in Australia, has members who work in a wide range of fields including insurance, banking, superannuation and investments, enterprise risk management, data science and AI, climate change impacts and government services. We have a longstanding commitment to contribute to public policy debates where our members' expertise can benefit Australia's long-term prosperity and wellbeing.

Drawing on this unique perspective, we share our insights on progressing AI and Quantum computing in this Parliamentary term and extend our offer of ongoing assistance to you and the Department.

Progressing artificial intelligence governance and support

Further progress in the approach to AI regulation is needed in several areas:

- the current risk classification system lacks the specificity necessary for effective regulation;
- the proposed guardrails for high-risk AI, while more specific than interventions proposed in the 2023 consultation, may not sufficiently address the full range of AI-related risks; and
- the application of guardrails may create excessive costs and/or externalities, if implemented in a broad manner.

Specifically, we encourage the Government to consider guidance material for AI practitioners delivered by a centralised expert body to enhance regulatory clarity. This would enable the use of existing regulation and may be more cost-effective and efficient than specific AI regulation.

In the interim, the Institute is collaborating with the UTS Human Technology Institute on developing practical guidance on AI risk assessments and the application of the Voluntary AI standards in financial services.

We also emphasise that it is critical to align AI regulation across government departments and jurisdictions, to avoid confusion and/or scope for unlawful conduct for practitioners and consumers.

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More generally, for Australia to embrace the opportunities and manage the risks of AI, the Institute encourages:

- investment in whole-of-society AI literacy, including by government, educational organisations and workplaces; and
- a highly considered approach to data centre placement to manage energy and water requirements and data and privacy sovereignty.

Developing our quantum computing capabilities

The Institute supports the Government's commitment to the development of an Australian quantum computing industry. We encourage the Government to support the development of new quantum algorithms and software in addition to the various alternative approaches to the development of quantum hardware where Australia has internationally recognised expertise. The Institute anticipates that once the data loading bottleneck issue is solved, many industries using large datasets, complex financial modelling and AI will benefit from enhanced computing power.

The Institute sees several applications in the fields in which our members work and support clients, including in financial services and managing climate risks and solutions. We have a modest and growing program of knowledge sharing in train which we would be happy to discuss.

As a very high priority we urge Government to work with industry to promote and implement the Australian Signals Directorate's recommendations on post-quantum cryptography. This is needed well in advance of the roll out of quantum computing to manage the potentially very significant economy-wide risk of 'harvest now' strategies.

We also encourage support for quantum computing skills development and associated industries, including cyber professionals.

Other issues

The Institute strongly supports continued initiatives to improve financial literacy and STEM education, particularly addressing the decline in students undertaking advanced mathematics subjects. Both are critical enablers to ensure Australian industry and all Australians can prosper.

The Institute is also available to support you and the Department in other areas that involve Industry, Innovation and Science. For example, our members provide deep analysis and advice on climate change. We will continue to contribute to the critical National Climate Risk Assessment, National Adaptation Plan, Sustainable Finance Strategy consultations and their outworkings. Our full suite of Thought Leadership spanning the wide range of areas in which our members work is available [here](#).

We look forward to continuing to work with you

The Institute values its strong relationship with all levels of government and looks forward to continuing discussions on matters of mutual interest with you and the Department. We would be delighted to meet with you to discuss these important policy considerations in greater detail. I can be contacted via executive@actuaries.asn.au, and the Public Policy Team can be contacted via public_policy@actuaries.asn.au, or (02) 9239 6100.

Yours faithfully,

Elayne Grace
CEO

Copy: The Hon. Dr Andrew Charlton MP, Assistant Minister for Science, Technology and the Digital Economy

Ms Meghan Quinn PSM, Secretary of the Department of Industry, Science and Resources