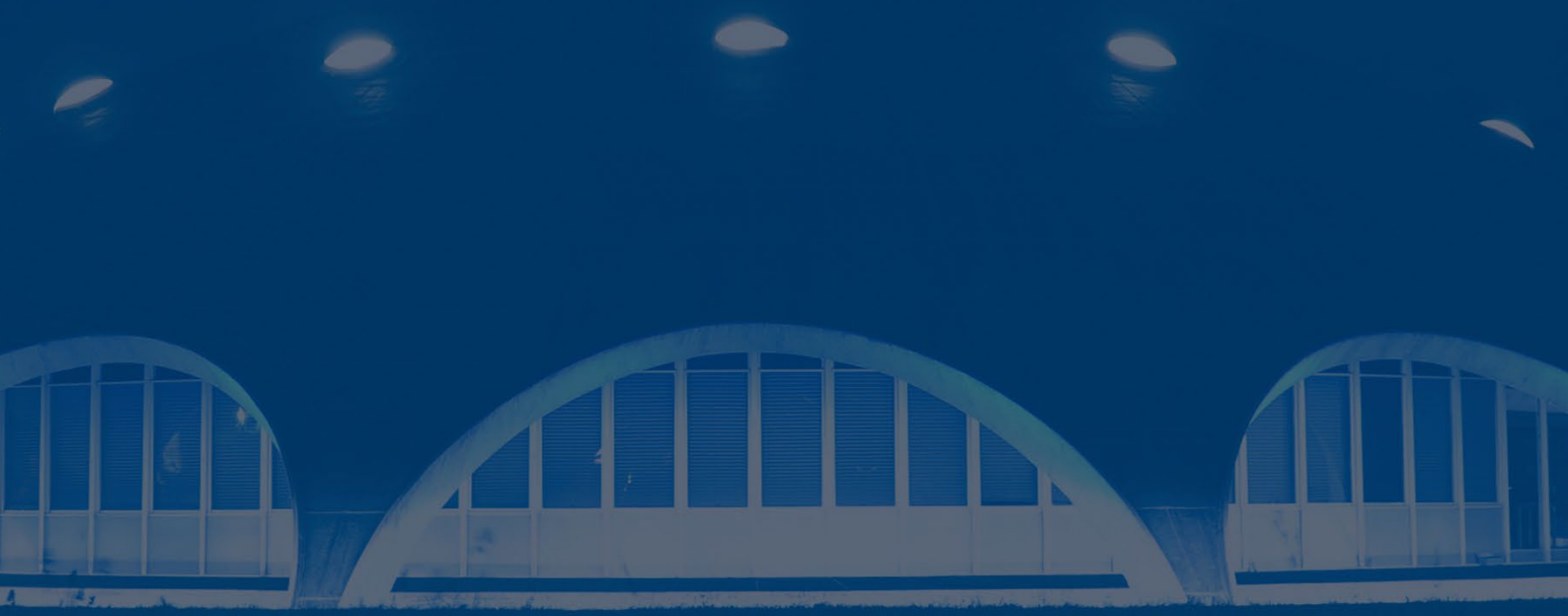
Australian Academy of Science

Is Australian science ready for AI?

Policy and funding mechanisms

December 2025



'Is Australian science ready for AI?' is a series of discussion papers that explore the preparedness of the Australian science sector for AI advances.

Are science policy and funding mechanisms ready for AI?

The interim response from the Australian Government on the safe and responsible use of AI aims to balance innovation and competition with community safeguards to protect privacy and security.

At time of publication, there is currently a lack of clarity regarding the overarching strategy for a comprehensive AI investment framework. However, the Australian Government has made targeted investments – most notably in the Australian Institute for Machine Learning and National Artificial Intelligence Centre – to foster responsible and transparent AI adoption and strengthen domestic research capabilities.

Enhancing Australia's AI expertise through such initiatives is essential for maintaining technological sovereignty and developing robust regulatory frameworks that support the nation's strategic interests.

Funding for AI science in Australia

Accurately identifying the present level of investment in AI capability across the science sector is complex.

Data from the Australian Research Council (ARC) shows a total investment of $240 million in research in AI field of research (FoR) codes from 2010 to 2023. This amount is comparable to the investment in quantum physics ($226 million) FoR codes over the same timeframe.

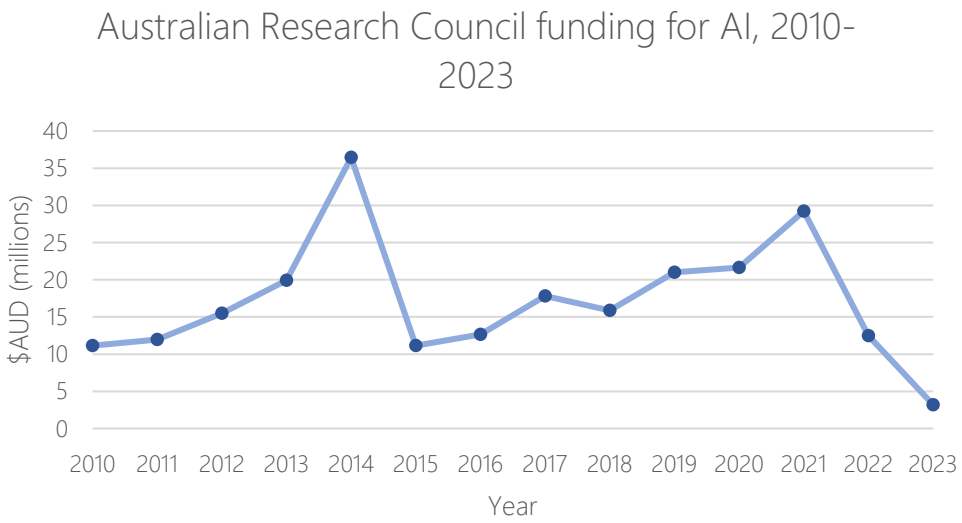
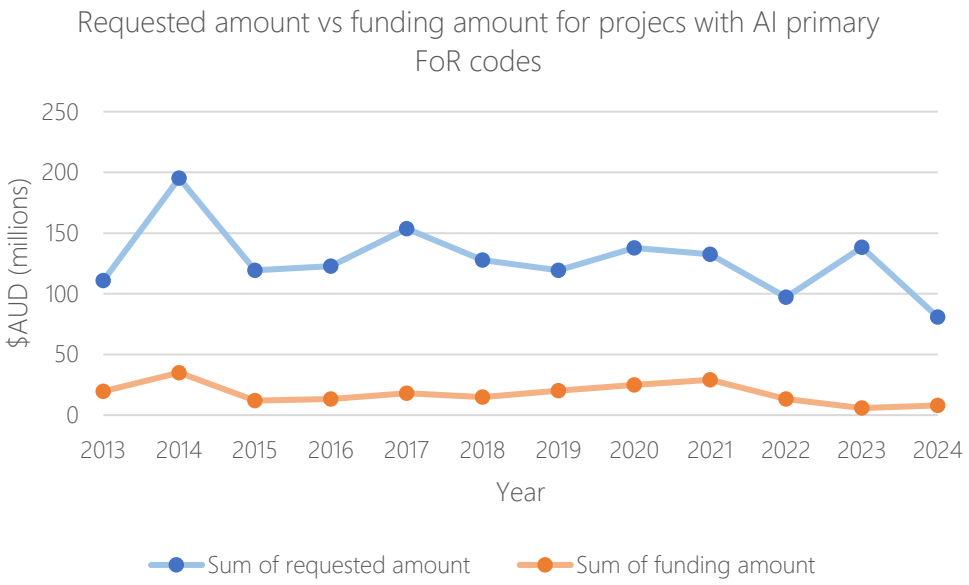


Figure 1. ARC Funding for AI research field of research codes 2010–2023. Note that this data does not include other ARC-funded initiatives such as the Centre of Excellence for Automated Decision Making and Society ($33.4 million).

While the total investment in AI and quantum physics is similar, the nature of the investment between these two areas of research differs. AI funding has mostly come in individual discovery grants, while ARC funding for quantum physics is characterised by a continuum of Centres of Excellence. This reflects the ad hoc and atomised nature of AI projects being funded and limited coordination across fields of scientific expertise.

Looking at the difference between the requested funding amounts and the total funding for projects where AI was the primary FoR code (including 0801 Artificial Intelligence, 4601 Artificial Intelligence, and 4611 Machine Learning) highlights the low success rates of such projects being funded in Australia. In 2024, the success rate of these projects being funded was 16%.



Between 2002 and 2016, AI research was also funded in the now-defunct National ICT Australia (NICTA), which had machine learning as one of its five branches. In 2016, NICTA was merged with CSIRO, becoming Data61.

While there is no dedicated Cooperative Research Centre at the time of publication, AI is embedded in the operations of most centres and was the focus of round six of the Cooperative Research Centres Projects program in 2019.

Since 2018, the Australian Government has funded a range of bespoke initiatives around AI, including the National AI Action Plan (2021); establishing and supporting the National AI Centre at Australian Government Department of Industry, Science and Resources; a Next Generation Graduates Program; and an AI Adopt Program.

In contrast with other nations, Australia has not recently focused on building basic science AI capability. However, the Australian Government has flagged work on an AI investment plan.

International trends in AI research and investment

2000–2024: the number of AI publications (per capita, million) in Australia increased from 16.7 in 2000 to 69.9 in 2024. Canada and the UK showed similar trends, with increases from 19.2 to 70.7 for Canada and 24.7 to 71.8 for the UK. Singapore and Hong Kong lead in AI publications (per capita, million), each exceeding 250 publications per million people in 2024.

2012–2024: venture capital (VC) investment in AI in the US exceeded US$550,000 million, with China placing second at US$265,485 million. In the same period, Australia's VC investment in AI totalled US$5,551 million. Countries with a similar GDP per capita to Australia, such as Canada, recorded a total VC investment in AI of US$18,540 million, three times the amount invested in Australia.

(Source: OECD AI Policy Observatory Live data).

AI poses challenges to the research funding model

Accelerated AI adoption in science also poses challenges to public funding of science more broadly, including the allocations of funding councils and government block grants to universities.

Our grant funding system largely relies on a reliable, verifiable and repeatable scientific record – the track record. If this foundation is compromised, funding organisations may need to revise their practices and standards.

Conversely, AI tools could assist funding councils in creating mechanisms that allow them to reconcile the conservative leanings of peer review with the ambition to support more daring or innovative research. However, the adoption of AI in this context would require careful and informed consideration by the scientific community to fully understand its impacts and potential downstream effects on the broader science system.

Similarly, in Australia, despite the 2015 reforms, formulas for allocating block grants and research training grants to universities are still partly dependent on publication metrics. It is possible that AI could lead to the recalibration of such metrics making them less reliable, with no alternative or proxy for quality.

How are the research funding councils allowing use of AI?

The ARC and the National Health and Medical Research Council have policies for using generative AI in their processes.

While AI can be used to help write grant applications, applicants must ensure information is reflected accurately and in line with policies such as the *Australian code for the responsible conduct of research*.

The use of generative AI is prohibited in assessing applications to maintain confidentiality and integrity of the peer review process. Policies offer advice and caution in using AI but rely on established policies for enforcement.

The *Australian Universities Accord final report*[1] highlighted that using AI or machine learning can open up new possibilities in evaluating research. While using AI in part to evaluate and assess research has attractions, the report cautions that agencies will need to demonstrate they are operating in a manner that is fair, consistent and appropriate.

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References

1. Department of Education. *Australian Universities Accord final report*. (2024).