2026-27 Pre-Budget Submission

January 2026

Australian Academy of Science 2026-27 Pre-Budget Submission

"What we choose for science and technology today will shape our destiny. The moment to act is now." **– Professor Chennupati Jagadish AC, President of the Australian Academy of Science, Ralph Slatyer Address on Science and Society 2025**

In an era of massive geopolitical, technological and environmental disruption, investing in science is not a luxury – it is a strategic necessity.

It is in Australia's national interest that we have the strongest science and technology system possible. This requires prioritising long-term, sustained investment in research, which equips us with the knowledge to solve challenges, innovate and seize new opportunities.

Australia's current science capability is unsustainable. While research costs rise, funding has fallen. This challenge cannot be addressed with band-aid solutions and one-off budget boosts.

Australian Research Council and National Health and Medical Research Council funding has declined in real terms. The Medical Research Future Fund (MRFF) is not being fully utilised. Our public research agencies face significant staffing cuts. These are the symptoms of a highly resource constrained sector.

The Australian Government recognised this by commissioning the Strategic Examination of R&D (SERD). Implementing the SERD's recommendations to reverse the decline in R&D investment will take several budgets, but it must begin with this one.

There are urgent opportunities that will kickstart the implementation of the SERD's recommendations and the step change to a secure, sustainable science system that strengthens Australia's future.

The Academy recommends the Australian Government:

- Implement the Strategic Examination of R&D recommendations to reform the national R&D system and reverse the declining trend in investment.

- Develop a 10-year R&D investment plan for the public and private sectors to work together to create an R&D ecosystem that makes Australia globally competitive and raise national investment in research. The Academy's budget positive proposal to establish a Research Fund from revenue from an R&D levy supports this objective.

- Invest in a decadal program to secure, coordinate and expand Australia's high-performance computing and data capabilities across government, the private sector and the science sector.

- Co-invest $16.5 million to the Academy's Global Talent Attraction Program, demonstrating national leadership by matching the investments made by state governments. Also enable access to the National Innovation Visa for successful Global Talent Attraction Program applicants.

- Invest $8.9 million over 4 years to extend the Academy's proven, high-quality, research-backed science and mathematics teaching resources and delivery of professional learning programs for educators.

- Invest in becoming an associated country to Horizon Europe to mitigate geopolitical risks and enhance Australia's access to world-leading research funding, infrastructure and collaboration opportunities.

- Sponsor Australia's membership in the Belmont Forum and participation in the Forum's Ocean 2 Collaborative Research Action. A $2 million one-off investment is expected to generate $10 million in benefits for Australia.

- Bolster the role of the National Science and Technology Council to involve all government Ministers with responsibility for science and research agencies and facilitate ready access to science and technology advice from Australia's learned academies, who have unique access to leading experts locally and globally.

The Academy has also made a joint submission to the 2026-27 pre-budget consultation calling for the Australian Government to establish a multidisciplinary advisory council on indoor air quality to oversee the development of national indoor air quality strategy.

Reverse the decline in Australia's R&D investment and restore our science system

The Australian Academy of Science calls for the Australian Government to make an unequivocal commitment to the implementation of the recommendations of the Strategic Examination of R&D.

The Academy recommends the government develop a 10-year plan to raise R&D investment, including the introduction of an R&D levy to incentivise business R&D investment and reverse the long-term decline in Australia's investment in R&D.

Australia faces increasing challenges and opportunities that demand strategic investment in science and innovation—to secure supply chains, strengthen defence and cybersecurity capabilities, drive the energy transition and decarbonisation, develop and adopt new technologies, and support citizen's wellbeing.

Australia's scientific and technological capability is central to its national ambitions including a strong, diverse and resilient economy, Future Made in Australia, the Critical Minerals Strategy, the National AI Plan, the 2035 emissions target and net zero policy, and the productivity agenda.

Paradoxically, Australia's science system is highly resource-constrained and has reached a critical point.

Reversing the downward trend in Australia's investment in R&D will take multiple budgets, but the first steps must happen *now*.

Australia has been underinvesting in homegrown R&D for many years, declining at about 0.1% of GDP per year. Overall, Australia's underinvestment in R&D amounts to a $27 billion gap compared to the OECD average.

**Australia's R&D expenditure as a percentage of GDP**
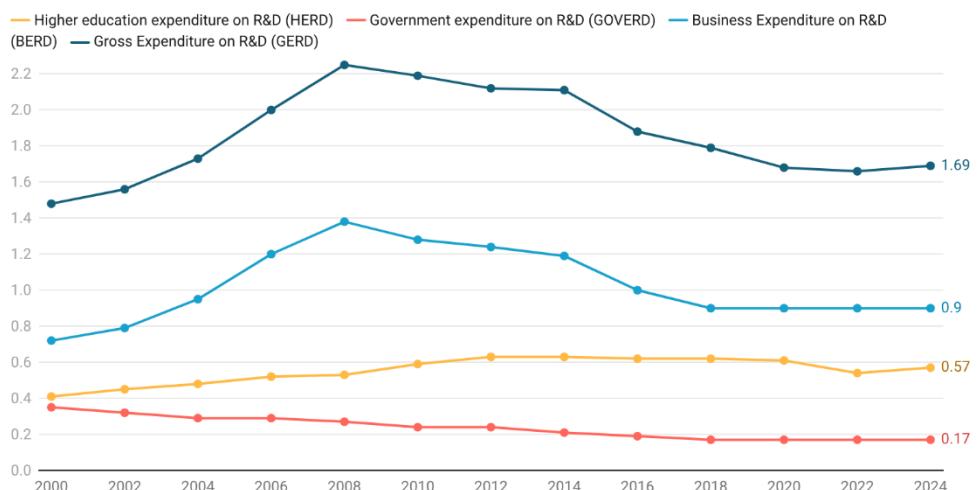
Chart: Australian Academy of Science • Source: Australian Bureau of Statistics • Created with Datawrapper

Government budget allocations for R&D (GBARD) is well below the OECD average—0.36% of GDP compared to the OECD average of 0.73%.

Competitive grant funding for research through the ARC and NHMRC has declined in real terms for over a decade. The government's investment in ARC's NCGP decreased from $1142.7 million in 2013-14 to $831.6 million in 2022-23 (-27%). Government investment in NHMRC research grants decreased from $1117 million in 2013-14 to $898.3 million in 2022-23 (-19.6%).

Investment in research grant programs ($m), inflation adjusted (2022-23 dollars)
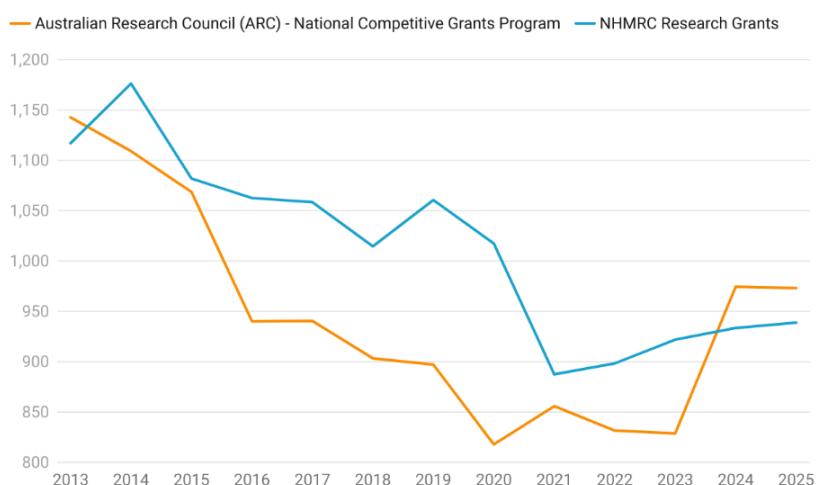

Chart: Australian Academy of Science • Source: SRI Budget Tables • Created with Datawrapper

The Medical Research Future Fund boosted government funding for health and medical research, however it is not targeted at basic research and disbursements are capped at $650 million a year, even though this could be doubled while still maintaining the fund's

capital.[1] Australia's national research agencies are also facing increasing budget pressures.

The Academy expects the Strategic Examination of Research and Development (SERD) to recommend that the Government reverse declining R&D investment and implement policies that recognise R&D as a national strategic asset able to grow the economy, strengthen national security and improve intergenerational wellbeing.

More than 10 years of decline in science funding cannot be restored in one budget, however, the Academy urges the government to make a strong commitment to implement the recommendations of the review and begin the journey to reversing this trend now. Delaying action will exacerbate the problem.

The Academy recommends establishing a Research Fund through applying a temporary R&D levy to incentivise businesses that generate more than $100 million in annual revenue. The levy would be discounted for businesses that invest in R&D. This is a budget-positive solution to grow the pool of funding for sustainable public investment in knowledge generation needed to fuel innovation and commercialisation. The Academy's proposal for an R&D levy, including independent economic modelling that explores the impact of different levy rates, is available here: Issues paper: Incentivising business investment in R&D.

Recommendation & investment

The Academy urges the Australian Government to make a strong commitment to implement the SERD recommendations and raise R&D investment in the federal budget. This should include:

- Developing a 10-year R&D investment plan for the public and private sectors to work together to create an R&D ecosystem that makes Australia globally competitive and that raises national investment in research.

- Applying either a 0.25% or 0.5% R&D levy to businesses with annual revenue of $100 million or more that can be discounted if businesses invest in R&D, with the levy revenue to be invested in a Research Future Fund and its returns invested in research.

Bring Australia's supercomputing up to speed

The Australian Academy of Science calls for ambitious strategic planning and targeted investment in next-generation high-performance computing and data infrastructure, including exascale computing, to strengthen and maintain Australia's sovereign capability as our economy becomes increasingly reliant on computing and data, and address national and regional priorities.

In the 21st century, high-performance computing and data (HPCD) (also known as supercomputers) is an essential capability. Advanced economies invest in HPCD to gain and maintain industrial competitiveness and scientific leadership, address societal

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[1] Parliamentary Budget Office costings of MRFF disbursements, commissioned by Dr Monique Ryan MP, September 2025

challenges, ensure national security, accelerate digital transformation, and ensure the capacity to participate in the artificial intelligence and machine learning revolution.

Supercomputers are vital to Australians' everyday lives. They support accurate weather forecasting, improve agricultural productivity, accelerate drug discovery, support cybersecurity and drive the development of new technologies including artificial intelligence (AI) that create jobs and fuel economic growth. Soon, we will rely on HPCD for the operations behind our food and healthcare systems.

HPCD is evolving quickly to meet the demands of increasingly complex scientific, industrial and societal challenges. Australia's existing supercomputers are oversubscribed and rapidly reaching the end of their life, and there is no plan for the next generation of computing, or to replace the HPCD infrastructure Australia relies on.

As datasets grow larger and simulations become more complex, existing petascale supercomputing systems are no longer sufficient. Exascale computing has emerged as the new benchmark for global competitiveness—1000 times faster than Australia's existing petascale supercomputers. This leap in capability enables unprecedented precision in climate modelling, AI development and advanced research, making exascale infrastructure essential for nations to address critical challenges and maintain technological leadership.

Recommendation & investment

Federal and state governments, research organisations and the private sector are investing in data centres and AI capabilities. Alongside this, investment in HPCD is essential as part of a strategic ecosystem of complementary compute and data capabilities that scale up Australia's ability to seize opportunities presented by data-intensive approaches.

The Academy calls for the Australian Government to set out a long-term national HPCD strategy and roadmap to build national capacity, with targeted investment in next-generation HPCD infrastructure over the next 10 years. This decadal program would necessitate investments of **$200 million per year over ten years**, directed towards:

- Upgrading and expanding national (Tier-1) and institutional (Tier-2) facilities, ensuring they are equipped to meet the growing demands of advanced research and societal needs.
- Coordination and co-investment in an Asia-Pacific regional (Tier-0) supercomputing facility to acquire, deploy and operate next-generation exascale infrastructure in Australia that services our region.
- Sector coordination, collaboration and planning across industries and institutions, to improve integration of data and computing resources, ensuring co-location of data storage and processing, which will reduce latency and optimise efficiency.
- HPC-powered emerging technologies, including AI and quantum computing, to accelerate scientific and industrial development and breakthroughs.
- Developing international partnerships for AI and exascale high performance computing with like-minded countries.

Further information

Bringing Australia's supercomputing up to speed

The future computing needs of the Australian science sector

Co-invest in the Global Talent Attraction Program

Australia has an urgent and unparalleled opportunity to attract the smartest minds to Australia and fill national capability gaps via the Global Talent Attraction Program (GTAP) led by the Australian Academy of Science. GTAP is a national, strategic and urgent effort to rapidly recruit world-class scientists and technologists from the US, whether they are returning Australians or leading international researchers.

Bringing exceptional talent to Australia has a significant multiplier effect on Australia's R&D system—seeding capability, creating jobs, attracting further investment, mentoring young scientists, stimulating collaboration and contributing to the national economy.

Through GTAP, Australia can play a role in maintaining global scientific capacity and expertise in the face of geopolitical challenges and attract leading minds to shape our future, taking advantage of years of investment made in them. Several state governments have made budget commitments to attract exceptional international talent to advance their strategic economic and research priorities. Matching Commonwealth funding that builds on state governments' investment and on the investments made by the Academy in creating the GTAP can economically and efficiently fill national skill and capability gaps.

Recommendation & investment

- Fill national capability gaps by co-investing $16.5 million to the Academy's Global Talent Attraction Program, demonstrating national leadership by matching the investments made by state governments.

- Enable access to the National Innovation Visa for successful applicants via the Global Talent Attraction Program.

Extend proven education resources for teachers

Australia's future scientific capability, economic resilience and innovative capacity depend on a STEM-literate population and a confident, capable teaching workforce. The Australian Academy of Science seeks a 4-year investment of $8.9 million to extend and scale its proven, high-quality, evidence-backed science and mathematics teaching resources and professional learning programs for educators from Foundation to Year 10 (F-10).

This extension initiative will double the online resource availability for the current Australian Curriculum across the Primary Connections, Science Connections and reSolve Maths programs. This work will include implementation support that boosts teacher confidence while ensuring equitable access across all teaching and learning environments. By leveraging the Academy's trusted platforms and national partnerships, this investment will deliver:

- Improved student engagement and achievement in STEM, strengthening Australia's future workforce pipeline.

- Measurable gains in teacher capability and confidence, reducing workload pressures and supporting retention.

- Equitable access to high-quality resources across metropolitan, regional, rural, and remote schools.

Recommendation & investment

- An investment of $8.4 million over 4 years to extend the Academy's proven, high-quality, research-backed science and mathematics teaching resources and delivery of professional learning programs for educators.

Invest in strategic and diverse global scientific engagement

Australia should become an associated country to Horizon Europe

Australia is at a crossroads in international research collaboration. In an era of rapid scientific transformation and rising geopolitical complexity, diversifying and strengthening mutually beneficial international research partnerships has never been more critical.

Association to Horizon Europe – the EU's €95 billion flagship Research and Innovation Programme – presents an opportunity for strategic, scaled collaboration that will boost Australia's productivity and innovation. Importantly, association would mitigate geopolitical risks that arise from overreliance on few international research partners. It would enable access to the largest research funding pool in the world and research infrastructure not available domestically, grow Australia's industrial partnerships, deepen international collaboration in areas where no one country can go it alone, and support emerging researchers to become the next generation of globally networked scientists.

Countries like New Zealand, the UK, Canada, South Korea, Switzerland, Japan and Israel have already become associated countries to Horizon Europe.

Association now would secure and facilitate Australia's accession into the next Horizon programme (2028 – 2034) with a proposed budget of €175bn (over AU$300bn). It would enable participation in restricted calls in areas like advanced AI, space, quantum technologies and secure communications, and allow Australia to influence priorities, future research calls and lead major international consortia.

Association is the closest possible partnership with the EU in research and innovation. It would complement other achievements in the Australia-EU relationship, notably trade and defence, and enhance the EU and Australia's shared common values and goals to uphold the international rules-based order.

While Australia maintains good collaboration with individual European Union nations, joining Horizon Europe will provide an opportunity for coordinated collaboration and access to EU research networks that multiples impact and return on investment

Using New Zealand's successful association with Horizon Europe as a model and leveraging our proven track-record of Australian-EU scientific collaboration, now is the moment for policymakers to act. Despite being a nation that spends only 1.4% of GDP on R&D, joining Horizon Europe has enabled New Zealand to gain access to 458 partner organisations, secure €8.03 million (NZ$16.1 million) in funding, and establish strategic associations and collaborations in quantum and space sciences. New Zealand expects a 10:1 economic return by 2045 on its investment in Horizon Europe.
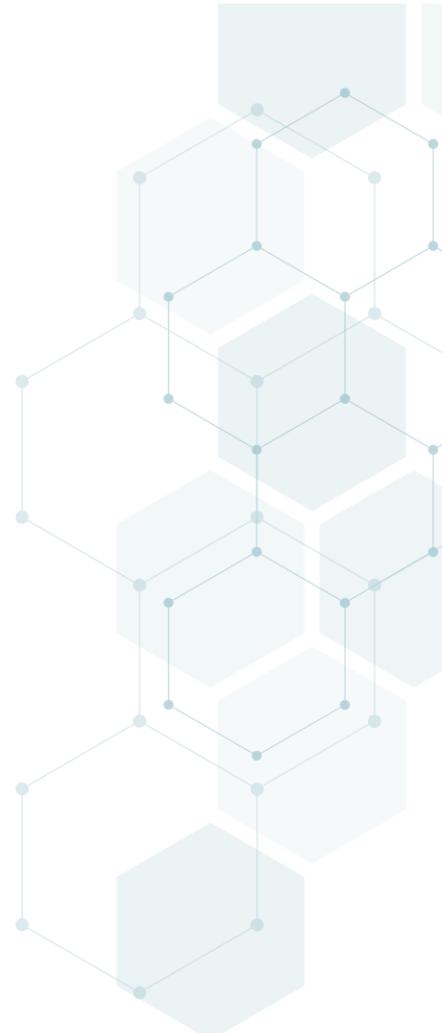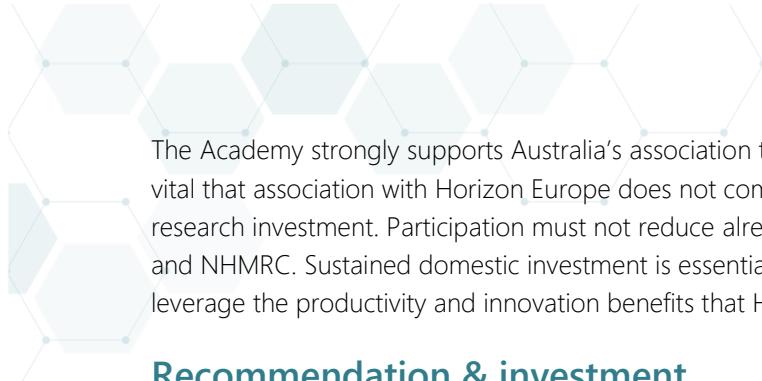
The Academy strongly supports Australia's association to Horizon Europe. However, it is vital that association with Horizon Europe does not compromise Australia's domestic research investment. Participation must not reduce already declining funding to the ARC and NHMRC. Sustained domestic investment is essential to ensure Australia can fully leverage the productivity and innovation benefits that Horizon Europe offers.

Recommendation & investment

- Invest in becoming an associated country to Horizon Europe to mitigate geopolitical risks and enhance Australia's access to world-leading research funding, infrastructure and collaboration opportunities.

Further information

Possible association to Horizon Europe

Invest in Belmont Forum collaborative research actions

The Belmont Forum is an influential international consortium of research funders committed to collective action on global environmental change. Participation in the Belmont Forum is an opportunity to shape global science direction and further Australia's international research leadership.

The Forum is an established and trusted mechanism for aligning funding to domestic and international priorities across more than 90 countries. To date, it has secured over €235 million, producing societally relevant research that is used in evidence-based policy.

Future Earth Australia (at the Australian Academy of Science) is Australia's adhering member to the Belmont Forum. Access to member benefits is available now and can capitalise on investment in key National Science and Research Priority aligned areas – including Oceans.

The Australian Government has invested in 4 Collaborative Research Actions to date via former Belmont member organisation, CSIRO. Historical Australian contributions have averaged ~AUD$670,000 per funded call, leveraging 5x that amount for funded projects (data to 2019).

Recommendation and investment

- Sponsor Australia's membership in the Belmont Forum and participation in the forum's Ocean 2 Collaborative Research Action, alongside peer nations. A $2 million one-off investment is expected to generate $10 million in benefits for Australia.

Support multidisciplinary advice at Ministers' fingertips

Australia should bolster and elevate its government science advice structures to ensure Cabinet and all government Ministers receive relevant, timely, independent, and coordinated scientific input to inform their decisions rapidly, and when and how they need it.

A coordinated, transparent and expert-driven science advice system strengthens government decision-making, ensures responsiveness to emerging challenges, and strengthens democracy and trust in institutions by promoting public confidence in evidence-informed policy. Elevating the Chief Scientist's role and bolstering the National Science and Technology Council's (NSTC) function, so that all Ministers can readily avail themselves to evidence and data to inform their decision making, would enhance Australia's ability to deal with the complex decision making often before Ministers and the parliament.

Australia's Learned Academies are uniquely placed to convene leading experts across Australia and across the world in all fields of science, engineering, technology, social sciences and humanities. Their ability to synthesise the latest evidence, and navigate uncertainty and differing viewpoints can play a key role in the advisory capability of the NSTC. This capability should include horizon scanning and rapid reports that are invaluable for strategic, anticipatory policy and decision-making.

Recommendation & investment

- Bolster the role of the National Science and Technology Council to involve all government Ministers and provide ready access to science and technology advice from Australia's learned academies, who have unique access to leading experts locally and globally.

- Relocate the Chief Scientist to the Department of the Prime Minister and Cabinet to ensure direct and independent science advice to the Prime Minister and Cabinet, aligned with international best practice.

Contact

To discuss or clarify any aspect of this submission, please contact Lauren Sullivan, Science Policy and Advice Manager, at science.policy@science.org.au.