SUBMISSION

Submission to the Senate Economics References Committee

Submission to the Funding and Resourcing for the CSIRO

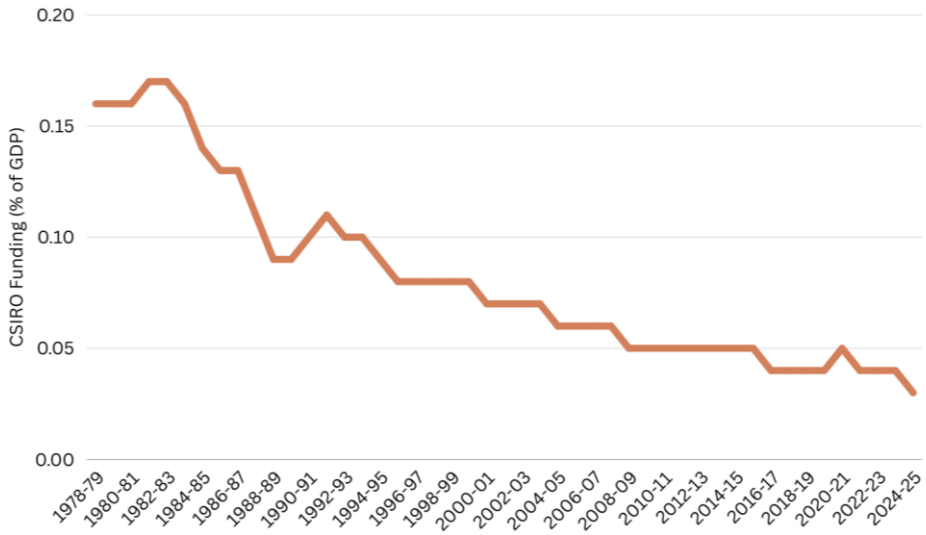
30 January 2026

The Australian Academy of Technological Sciences and Engineering (ATSE) is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia's leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

Australia's publicly funded research agencies (PFRAs) are the backbone of Australia's research and development (R&D) ecosystem. PFRAs allow government decisions to be built upon data and evidence, manage facilities for the entire research sector, support industry connections with applied research to build economic resilience and growth, and provide a pathway for the government to set a research agenda to address issues of priority to the nation. Recently, cuts have been announced to programs and staff across several PFRAs - ANSTO recently announced project closures that could see the loss of 10% of staff (Bower 19 November 2025), while CSIRO has faced multiple staff losses over the last few years. Near the end of 2025, CSIRO announced the loss of 300-350 staff members (CSIRO 2025a), following more than 800 job losses over the 18 months prior (Canales 2025).

This loss of expertise and capacity across Australia's PFRAs will directly and indirectly harm our nation's goals and economic prosperity, and leave the nation less able to tackle the major challenges of our time. There is an urgent need for increased, long-term investment in PFRAs, as well as in the broader R&D ecosystem in Australia. ATSE notes the recent funding announcements for CSIRO and ANSTO in the 2025 MYEFO (Treasury 2025). The $233 million announced for CSIRO represents the largest injection of funding for CSIRO since the pandemic - but this is targeted funding largely earmarked to address urgent infrastructure repairs and maintenance that does not arrest the long-term decline in budget as a proportion of GDP (see Figure 1). CSIRO has already said that a one-off budget boost will not be sufficient to halt plans to cut staff (Frost 17 December 2025). A consistent, long-term financially realistic and sustainable solution is needed to unlock the full potential of Australia's PFRAs to contribute to economic and other health and resilience. Any increase in funding for PFRAs should not be sought by cutting funding from research commercialisation programs such as the Industry Growth Program and the Australian Economic Accelerator. Doing so only increases the pressure on CSIRO to lead research translation and meet high governmental expectations for building capability through translational research, as emphasised in government's Statement of Expectations (Ayres 2025).

Figure 1: CSIRO Funding 1978-2025



Source: Parliamentary Library via ABC News.

To stabilise the PFRAs that support an effective R&D ecosystem in Australia, ATSE provides the following recommendations for consideration:

Level 2, 28 National Circuit
Forrest ACT 2603
Australia

PO Box 4776
Kingston ACT 2604
Australia

+61 2 6185 3240
info@atse.org.au
atse.org.au

ABN 58 008 520 394
ACN 008 520 394

Australian Academy of Technological Sciences & Engineering

Recommendation 1: Ensure the 2026 National Research Infrastructure (NRI) Roadmap facilitates sufficient investment to maintain and operate NRI facilities, including those run or supported by CSIRO.

Recommendation 2: Set and progressively work towards a target for appropriate long-term budget for CSIRO and other PFRAs to enable them to meet the government's expectations and deliver against the National Science and Research Priorities.

Recommendation 3: Leverage implementation of the Strategic Examination of Research and Development recommendations to bring total government investment in R&D into line with international standards and Australian aspirations.

The value of publicly funded research agencies

Australia's PFRAs provide significant economic and social benefits to the nation. While research and development nationally has been found to return $3.50 on average for every dollar invested (CSIRO 2021), CSIRO has been shown to return $8.80 per dollar invested (Tractuum and RTI International 2024). This translates to an expected $32 billion for the Australian economy by 2034 (Tractuum and RTI International 2024). This is a conservative estimate which only considers the direct commercial benefits of CSIRO research and does not include the estimated billions of dollars saved through effective public health, environmental protection and other interventions, and improved policies, that are developed based on CSIRO data and research. The estimate also does not cover the indirect value of PFRAs to Australia – which includes the work they do in science communication, community education, soft diplomatic power, medical radioisotope creation[1], training and opportunities for the Australian research community, and more.

CSIRO research helps support Australian decision making and diplomacy. CSIRO supports modelling to manage fisheries and ocean ecosystems, control invasive species, take measures to control and prevent disease, and underpin weather forecasting, climate projections and blue economy decision making. The biennial Integrated Systems Plans produced by the Australian Energy Market Operator – which provide a roadmap for decarbonisation and energy security nationally – are built on the back of data and analyses conducted by CSIRO. Similarly, Australia's world-leading, national weather and climate model, ACCESS, is supported by CSIRO and was vital for the 2025 National Climate Risk Assessment. Diplomatic programs like the Pacific-Australia Climate Change Science Adaptation Planning program and the Pacific Climate Chance Science and Services Outreach Project are also supported by CSIRO scientists and ACCESS modelling. This work has helped to strengthen Australia's Pacific ties and prepare our nation for a changing climate. PFRAs, including CSIRO, provide a vital community service that helps Australia adapt to a changing world and achieve policy and diplomatic objectives.

PFRAs also help to establish the conditions that make our national research ecosystem possible. CSIRO has a broad remit covering facilities maintenance, researcher training, industry engagement and science diplomacy. CSIRO and other PFRAs are therefore critical partners in several National Research Infrastructure (NRI) projects and the National Collaborative Research Infrastructure Strategy (NCRIS), in both leading and supporting roles. The Department of Education describes NRI as playing "a crucial role in delivering breakthroughs in fundamental research, cutting-edge applied research and in facilitating industry engagement in research and development" and argues that NRI "underpins Australia's sovereign R&D capability" (Department of Education 2025). Funding to establish and run these facilities is often provided through time-limited grants and does not cover operational and maintenance costs once short-term funding has expired. The insufficiency of current arrangements was highlighted by the one-time budget injection in the 2025 MYEFO to repair and maintain CSIRO's ageing infrastructure portfolio. In the long-term, losing PFRA capacity to support NRI facilities would erode Australian research capability across the whole system, reducing access to critical research infrastructure for researchers across the nation and making it harder for Australian research to solve Australian problems and build Australian opportunity. The ongoing 2026 NRI Roadmap process provides an opportunity to support our PFRAs to deliver the research infrastructure needed to strengthen the entire Australian research ecosystem.

Recommendation 1: Ensure the 2026 National Research Infrastructure (NRI) Roadmap facilitates sufficient investment to maintain and operate NRI **f**acilities, including those run or supported by CSIRO.

[1] Through ANSTO.

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Forrest ACT 2603
Australia

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CASE STUDY: ARGO FLOATS

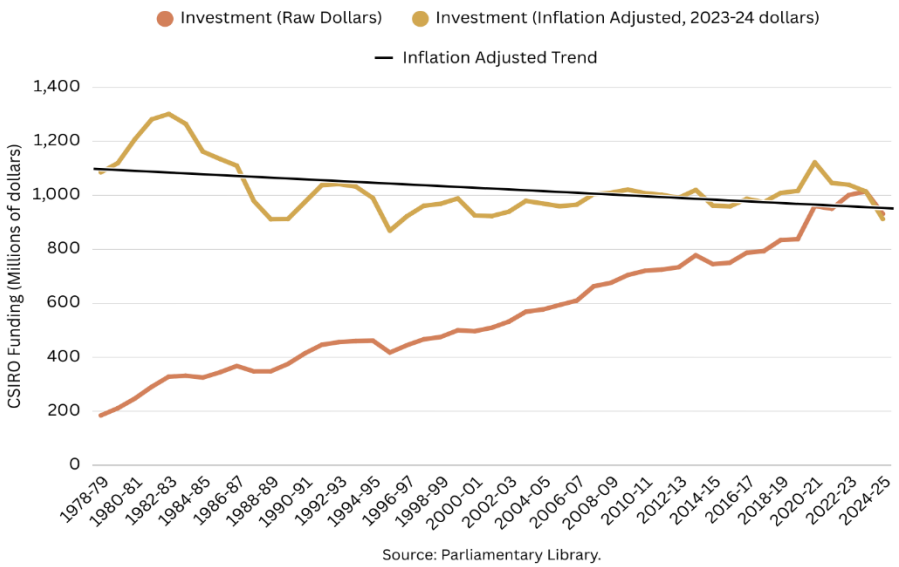
Hailed as one of the scientific triumphs of our age (University of California San Diego 2025), Argo floats consist of an international network of 3600 floating sensors that provide vital ocean data every 10 days. These floats sink and rise through the water, dropping to a depth of 2km (CSIRO 2024). As they move through the water, the floats collect measures of temperature, salinity, pressure and location. Data collected is made freely available within 24 hours (IMOS 2025). This data helps to support decisions across a broad range of domains, including ocean conservation, weather and climate modelling, maritime safety, energy security, fisheries and aquaculture, and coastal infrastructure and industries. For example, Argo Floats help fisheries companies assess fishing stock levels, supporting efficient and sustainable fishing practices. Argo data is repeatedly referenced in IPCC reports, has supported over 500 PhD theses and has resulted in more than 6000 scientific publications.

The Argo floats form part of an international initiative through the World Climate Research Programme's Climate Variability and Predictability projects and is a part of the Global Ocean Observing System. Australia provides the 4th largest contribution to the program, with 277 floats operational in November 2025 (University of California San Diego 2025). The Australian run floats are managed by the Integrated Marine Observing System (IMOS), an NCRIS facility. CSIRO Environment operates Argo Australia, a critical component of IMOS. CSIRO works with the Bureau of Meteorology, the Environment Department and the Antarctic Climate and Ecosystem Cooperative Research Centre to fund and operate the program. Australia's role in these programs is even more vital following significant cuts to the US National Oceanic and Atmospheric Agency (NOAA), which will significantly restrict NOAAs capacity to conduct climate-related research in the Indo-Pacific.

Long term trends in funding for research and PFRAs

The recently proposed cuts to CSIRO's staffing are not the result of direct funding cuts, but instead have become necessary due to a long-term failure of funding to keep up with the real costs of research. In 1982, CSIRO's government-supported budget was equivalent to 0.17% of Australia's GDP. Today that figure sits at 0.03% (Bower 19 November 2025). Over the past 15 years, CSIRO's budget allocation has increased by an average 1.5% per annum, compared with an average inflation rate over that time of 2.7% (CSIRO 2025b) – leaving the agency well behind in real terms (see Figure 2). At the same time, the costs of doing research have risen across the sector. While sector-wide figures are not available, the Association of Australian Medical Research Institutes estimates total research costs are rising by 6.06% per year in their member institutes (AAMRI 2024). This results in a measurable decline in investment and capacity over time.

Figure 2: CSIRO Funding 1978-2025



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The steady decline in direct budget allocation for PFRAs is compounded by uncertain and often last-minute grants and funding decisions. These are routinely short-term and/or made just prior to the expiry of previous funding, leaving PFRAs unable to plan effectively or provide job security to employees, resulting in researchers leaving in search of a greater job security. This causes a stop-start effect and loss of sustained knowledge and practice to long-term research projects, losing valuable time, information, opportunity and knowledge, and setting back Australia's national capability to leverage targeted R&D to build resilience, health and wealth. As highlighted in ATSE's *Boosting Australia's Innovation* report, long-term policy and funding horizons are required to build a fully integrated R&D system that allows ideas to become fully commercialised and adopted, and incentivises industry partnership and investment in research. A long-term plan that grows PFRA funding as a proportion of GDP back towards levels seen in the 1980s – a time when CSIRO invented polymer banknotes, gene sheers (that enable today's mRNA technologies) and cyclone resistant offshore gas platforms – would give our PFRAs the certainty to plan for the future, build a strong talent pool, and fully deliver on their remit for mission-oriented innovation.

The decline in federal investment in CSIRO, as a proportion of the overall economy, is occurring within the context of a broader trend of contracting research funding and cuts to the research workforce across the nation. Universities across the country have lost around 3500 of their workforce over the last two years due to financial limitations, as grants fail to cover the full cost of research (Bower 19 November 2025). This has occurred while Australia's total R&D investment has fallen to 1.68% of GDP and while international competitors are increasing their R&D investments[2]. An overhaul of Australia's R&D system is needed. The Strategic Examination of Research and Development will ideally lead to broad systemic changes across the R&D sector, but this will need to include increased funding from both governments and industry. This decline in funding for the broader R&D sector puts more pressure on Australia's PFRAs to do more to hold the system up and will likely result in missed opportunities for economic development across the economy.

If Australia seeks to build its sovereign capability and independence, forge a sustainable future as climate change continues to impact across every sector, grow its health and economic resilience, and remain a world-leading destination for R&D, this declining investment is unsustainable. ATSE continues to call for this decline to be reversed, and for Australia's research funding to be brought in line with research world leaders, to support the Australian economy and society.

Recommendation 2: Set and progressively work towards a target for appropriate long-term budget for CSIRO and other PFRAs to enable them to meet the government's expectations and deliver against the National Science and Research Priorities.

Recommendation 3: Leverage implementation of the Strategic Examination of Research and Development recommendations to bring total government investment in R&D into line with international standards and Australian aspirations.

ATSE thanks the Senate Economic References Committee for the opportunity respond to the inquiry into funding and resourcing for the CSIRO. For further information, please contact

[redacted]

[2] For example, China increased their R&D funding by 8.7% in 2023 to reach 2.58% of their GDP (OECD 2025).

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