

## Submission to the **Funding and Resourcing for the CSIRO**

To the Senate Standing Committees on Economics

9 January 2026

Dear members of the Committee:

The following is a submission to the inquiry into Funding and Resourcing for the CSIRO.

Thank you for the opportunity to contribute to this important inquiry. I have conducted fundamental and applied research at universities, and state and federal government agencies in the past 15 years in Australia, with funding from public and private sources. Additionally, I have conducted research in Southeast Asian and EU countries. I currently work at CSIRO.

### **ToR (b). The importance of public funding for public good science**

Scientific research is critical to Australia's future economic, environmental, and community well-being. *Insufficient public funding leads to compromises that ultimately cost the country's economic resilience, liveability and community wellbeing.*

Public and private R&D investments serve different but complementary roles. I have conducted research funded by public and private sources. The research I have carried out for private purposes was generally for regulatory compliance or product development purposes; and the discovery, theoretical or public good research would not have occurred in the absence of public funding.

In nutrition science, funding matters as the implications for public health are significant. Conflicts of interest matter, as food industry involvement raises concerns about bias (from the choice of research question, design, and analysis to interpretation and publication) and have implications on dietary guidelines and public health policy<sup>1</sup>.

Climate change impacts and adaptation, natural disaster response, environmental conservation, and public health science that form the basis of our response to climate change and Covid-19 would not have been possible in the absence of public funding.

Public funding provided the tools that contributed to research that led to the [2025 Nobel Prize in Chemistry](#) for metal-organic frameworks. These materials, invented in Melbourne, can capture carbon dioxide or filter PFAS contaminants from water. These very tools are now at risk of termination due to shortfalls in Australian Government research funding at Australian Nuclear Science and Technology Organisation (ANSTO).<sup>2</sup>

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<sup>1</sup> Nestle, M. (2016). *Corporate funding of food and nutrition research: Science or marketing?* JAMA Internal Medicine, 176(1), 13–14; Mozaffarian, D. (2017). *Conflict of interest and the role of the food industry in nutrition research.* JAMA, 317(17), 1755–1756.

<sup>2</sup> Preuss M., Zhai M. 2025. Cuts to key research facilities threaten Australia's ability to be a global scientific leader, [The Conversation](#)

## ToR (c). the importance of public resourcing of Australian sovereign scientific capability;

*Sovereign R&D capability gives us the tools we need to be self-reliant, making us more resilient to external shocks, and turbo charging productivity and economic growth. It is an investment in ourselves rather than a reliance on others who are motivated to advance themselves, not us.<sup>3</sup>*

In Australian Nobel laureate Brian Schmidt's address to the National Press Club in May 2025<sup>4</sup>, he said, "I look around and I am scared. The Australian government investment in its sovereign research capability was 50% higher 15 years ago as a fraction of GDP.

*We can expect new technologies based around small-scale automated machines, hypersonic missiles and computer warfare to feature prominently if we are to have future conflicts between advanced economies.*

*In such a case the research capability of a country will be incredibly important at influencing the overall winners and losers, because once the conflict starts, you 'have what you got'.*"

## ToR (h) the effects of these cuts on the program of scientific work conducted by the CSIRO

The recent proposed cuts to CSIRO will particularly affect health, biosecurity, agriculture and food, and environment research units. These were strongly influenced by the prioritisation set by the Statement of Expectations, provided by the Minister for Science, Industry and Innovation Senator Tim Ayres in October 2025, which prioritised applied research and research translation<sup>5</sup>. This statement directs the national science agency to prioritise applied research and research translation into commercialisable goods over fundamental science and public goods research. It raises the question of whether this vision of CSIRO could still invent wireless LAN<sup>6</sup>, an invention that came out of solving a problem in radioastronomy.

The Australian Academy of Sciences have pointed out that "*The Strategic Examination of Research and Development (SERD) issues papers have failed to address declining investment in fundamental research, instead implying research is only important if it can be commercialised by industry*".<sup>7</sup>

The largest cuts are expected to come from the Environment Research Unit, where I currently work. CSIRO's natural environment research spans national and international scales to inform planning, policy options and ensure our natural resources are used sustainably. The work of this unit contributes to method development, measurement and monitoring that allows Australia to deliver on our international commitments, such as Paris Climate Agreement, or Kunming-Montreal Global Biodiversity Framework, and national

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<sup>3</sup> Australian Academy of Science. 2025. [Incentivising business investment in R&D](#).

<sup>4</sup> Walker-Munro, B. 2025. [Nobel laureate Brian Schmidt is ‘scared’ about Australia’s research capacity – this is why](#), The Conversation

<sup>5</sup> Minister for Industry and Innovation and Minister of Science [Statement of Expectations to CSIRO](#).

<sup>6</sup> CSIRO. 2020. [Bringing WiFi to the world](#)

<sup>7</sup> Australian Academy of Sciences. 2025. [Australia’s fundamental research funding crisis is being ignored](#).

commitments, such as the establishment of a Nature Repair Market<sup>8</sup>. The loss of knowledge resulting from job cuts may undermine Australia's ability to deliver on these commitments.

## ToR (i) any related matters

***Job losses at CSIRO are a symptom of wider problems.*** Australia's R&D budget is 0.53% of GDP in 2025-26<sup>9</sup>, below the OECD average of 2.7%<sup>10</sup>. According to the Australian Academy of Sciences, our research expenditure as a proportion of GDP has decreased every year since 2008, and within five years, Australia will be at the bottom of the OECD, undermining our ability to prosper and remain safe in a technological advanced and volatile world<sup>11</sup>.

Australian business investment in research as a percentage of GDP has also declined from a peak of 1.37 per cent in 2008–2009 to just 0.88 per cent in 2021–2022.<sup>12</sup>

***The most conservative estimate suggests every dollar invested in research and development creates \$3.50 in benefits for Australia, and spending on research and development is estimated to earn annual yields of 10%, even if there are delays or cost overruns.***<sup>13</sup>

***Australia's research funding at public institutions lacks stability.*** I currently work at CSIRO, with a team affected by the recently announced cuts at CSIRO. In my 15 years in Australia, I have experienced many cycles of funding and job cuts across public research institutions and have seen the traumatic and career-ending consequences of these cuts. While low job security is common in Australia, it is particularly acute in the scientific community. I have known many scientists who quit science because they can no longer economically afford to keep doing what they do; or because their family lives are disrupted by the nomadic nature of current scientific career, imposed by job insecurity. Without improved funding and better job security for scientists, we will have fewer scientists working on critical research and innovation at a time when world-class science is most needed to meet Australia's enormous economic, social, and technological challenges. In this environment, we need to invest more, not less in public good science.

We are already seeing widespread human toll of Australia's lack of investment in public good research in organisations that uphold knowledge creation in Australia, resulting in massive job cuts and/or infrastructure shutdown, including ANSTO<sup>14</sup> and across universities<sup>15</sup>.

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<sup>8</sup> Department of Climate Change, Energy and the Environment and Water. 2026. [Nature Repair Market](#)

<sup>9</sup> Department of Industry, Science and Resources, August 2025. [Case study: What can the 2025-26 SRI budget tables tell us about Australian Government investments in science, research and innovation?](#)

<sup>10</sup> OECD 2025. [OECD main science and technology indicators](#). Statistical release: R&D spending growth slows in OECD, surges in China; government support for energy and defence R&D rises sharply, March 2025

<sup>11</sup> Australian Academy of Science. 2025. [Incentivising business investment in R&D](#).

<sup>12</sup> Science and Technology Australia. 2024. [Australian economy needs a research and development power up](#).

<sup>13</sup> Wynn, K. Cohen J., Liu MJ. 2021. [Every dollar invested in research and development creates \\$3.50 in benefits for Australia, says new CSIRO analysis](#), CSIRO Futures

<sup>14</sup> Preuss M., Zhai M. 2025. Cuts to key research facilities threaten Australia's ability to be a global scientific leader, [The Conversation](#)

<sup>15</sup> <https://www.theguardian.com/australia-news/2025/aug/24/australian-university-course-cuts-jobs>

We are also seeing the impact of underinvestment as Australia dropped out of the top 10 nations in the 2024 Research Leader ranking by Nature Index<sup>16</sup>, and remained outside the top 10 in 2025.<sup>17</sup>

This lack of investment in science could lead to significant economic consequences for Australia's future. The Economic Complexity Index by Harvard University, a measure of future economic growth potential and resilience based on relative diversity of an economy, ranked Australia 105 out of 145 countries in 2023, dropping from 62 in 1995<sup>18</sup>, and described Australia as "*less complex than expected for its income level*". For comparison, Pakistan ranked 99, China 16, USA 15, UK 7 and Germany 6.

## Recommendations

I recommend the following for consideration for CSIRO's funding and resourcing:

- CSIRO should be given the authority to make independent decisions over its research priorities and capabilities, with checks and balances in place for the Minister to intervene in the 'extraordinary circumstance of a potential threat to national security', and with guidance from, but not constrained by, the Statement of Expectation from the Minister. The 2023 review into research funding in Australia provides some useful guidance for considerations of how priorities of the national scientific agency can be set<sup>19</sup>.
- Ensure a diversified portfolio for CSIRO by proportioning funding to 70% public good/fundamental and 30% applied/translational, noting that the distinction between them is not always clear. Within the applied/ translational component, focus on research where other sources are not readily available, as such research is likely to be longer-term and are of higher risk of failure but may have disproportionate consequences for humanity. For example, instead of focusing on quantum computing, prioritise quantum physics or quantum science.
- Ensure stability of research funding, at minimum of 10-year cycles, at CSIRO to ensure continuity of staffing and research programs to achieve maximum benefit and efficiency of resources (including human capital) use in the long-term.

And more broadly:

- Adequate funding reflecting Australia's ambition as a knowledge economy, meeting or exceeding the current OECD leaders in R&D funding, e.g. Israel (6.35% of GDP), South Korea (4.96%), Chinese Taipei (3.97%) and Sweden (3.64).
- Prioritise R&D at the highest level of government through a subcommittee under the National Cabinet federation architecture to streamline cooperation.
- Recognise fragmentation in Australia's R&D system is a barrier to progress and develop better funding structure that supports collaboration and efficient use/sharing of infrastructure/ resources within and across institutions.
- Cap public sector CEO's, Vice Chancellors and managers maximum salary package to no more than 10 times the median wage. To be able to fund our public services properly, we cannot perpetuate worsening levels of inequality.

<sup>16</sup> Nature Index. 2024. [Research funding in Australia: what are the latest trends?](#)

<sup>17</sup> Nature Index. 2025. [2025 Research Leaders: Leading countries/ territories](#)

<sup>18</sup> Harvard University Growth Lab. [Atlas of Economic Complexity, Country Profile: Australia](#); ABS 2025.

Measuring What Matters themes and indicators: [Economic resilience](#),

<sup>19</sup> Department of Education 2023. Trusting Australia's Ability: Review of the Australian Research Council Act 2001

- Establish a collaborative forum bringing together representatives from major research funding agencies and programs to provide research policy advice and enable coordination to logically sequence funding.
- Australia's first national wellbeing framework recognises five wellbeing themes as pertinent for a healthy, secure, sustainable, cohesive and prosperous Australia.<sup>20</sup> These considerations should form the underlying basis for decision for long-term research funding.
- Short-term additional funding could be allocated to investigate emerging priorities.
- Incentivise business investment in R&D by applying either a 0.25% or 0.5% R&D levy to businesses with annual revenue of \$100 million or more, which can be discounted if businesses invest in R&D.<sup>21</sup>
- Improve R&D settings to enable and support scientists transitioning to and from between industry and public research institutions. In this aspect, lessons could be learnt from Germany where cooperations between academic-industry is strong.<sup>22</sup>

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<sup>20</sup> The Treasury, Australian Government. 2023. [Measuring what matters](#)

<sup>21</sup> Australian Academy of Science. 2025. [Incentivising business investment in R&D](#).

<sup>22</sup> Elsevier, 2025. [Germany as a Science Nation](#)