

11/4/2025

SERD Review Panel

Australian Department of Industry, Science and Resources

Submitted via the online submission portal

Dear SERD Review Panel,

ACOLA's response to Strategic Examination of R&D Review Discussion Paper

The [Australian Council of Learned Academies \(ACOLA\)](#) welcomes the opportunity to respond to the Strategic Examination of Research and Development (SERD) Review discussion paper.

ACOLA is the forum whereby Australia's Learned Academies¹ come together to contribute expert advice to inform national policy and to develop innovative solutions to complex global problems and emerging national needs. Through the Learned Academies, ACOLA has access to more than 3,200 of Australia's greatest minds to bring together multidisciplinary critical thinking and evidence to inform robust policy decisions.

This letter provides an overview of the key areas and principles that should be considered as part of the SERD Review. Australia's Learned Academies have provided further information and explicit recommendations across these themes in their submissions. We encourage the Department to read the individual Academies' submissions, which can be accessed through the links below:

- [Australian Academy of Science](#)
- [Australian Academy of Technological Sciences and Engineering](#)
- [Australian Academy of Humanities](#)
- [Academy of the Social Sciences in Australia](#)
- [Australian Academy of Health and Medical Sciences](#)

Australia's research and development (R&D) system is at a critical juncture. As global challenges intensify and technological advancements accelerate, the need for a robust, well-coordinated and adequately funded R&D system has never been more pressing.

A holistic and inclusive approach to Australia's R&D system is needed — one that aligns with the National Science and Research Priorities and integrates increased investment, strategic coordination, development and support of a diverse research workforce, industry collaboration and the inclusion of social sciences and humanities. Further strengthening these interconnected themes will elevate Australia's R&D capabilities, foster innovation and ensure that our nation's R&D system is responsive, adaptable and globally competitive.

¹ Australian Academy of Science, Academy of the Social Sciences in Australia, Australian Academy of the Humanities, Australian Academy of Technological Sciences and Engineering, and Australian Academy of Health and Medical Sciences

Systemic wide coordination is key

While the Learned Academies present various options of what a new coordination model could look like, it is clear that an effective national R&D sector can only be achieved if there is an integrated and long term strategy with clear priorities, governance and coordination and strong alignment with federal and state government initiatives and investments.

Importance of Humanities, Arts and Social Sciences

Responding to national challenges, including our National Science Research Priorities, will require collective expertise across our research system, from STEM² solutions that drive innovation, through to HASS³ considerations that will support translation and uptake. The integration of HASS alongside STEM in Australia's R&D ecosystem is essential for addressing complex societal challenges. By fostering multidisciplinary collaboration, informing policy development and supporting education and workforce development, HASS disciplines contribute to more holistic economic and social impact.

First Nations Knowledge and Leadership

More work is needed to better enable and support research at the interface of Indigenous Knowledge and acknowledge and understand the deep knowledge held by Aboriginal and Torres Strait Islander peoples. International agreements such as the United Nations Declaration on the Rights of Indigenous Peoples; the Convention for the Safeguarding of Intangible Cultural Heritage; and the Convention on Biological Diversity, emphasise the importance of maintaining, protecting, rebuilding and expanding Indigenous Knowledge⁴. However, Australia's current intellectual property (IP) laws do not adequately safeguard these rights⁵, even if they were to undergo reform. The existing legal framework does not adequately recognise and protect the Indigenous Cultural and IP rights of Aboriginal and Torres Strait Islander peoples. The framework should acknowledge Aboriginal and Torres Strait Islander Peoples cultural governance and their authority to protect, use and share their Indigenous Knowledge in ways that they deem fit.

Establishment of clear policies that recognise and address the ownership and profit-sharing of Traditional Owners' IP is needed. The implementation of existing frameworks such as the Nagoya Protocol and access and benefit-sharing agreements can provide protection for Indigenous Knowledge and facilitate collaboration between researchers and Indigenous communities. Progressing Priority 3 of the National Science and Research Priorities (elevation of Aboriginal and Torres Strait Islander Knowledge Systems) will be important in ensuring appropriate recognition and advancement of Indigenous Knowledge in our R&D system.

International collaboration and geopolitical landscape

² STEM: Science, Technology, Engineering, Mathematics

³ HASS: Humanities, Arts and Social Science

⁴ Indigenous knowledges encompasses all the tangible and intangible cultural heritage of First Nations peoples in Australia and is rooted in ancient and enduring connection to Country and its landscapes, waters, flora and fauna. It includes not only traditional knowledge and traditional cultural expressions but also rights to the genetic resources of the native flora and fauna of traditional lands.

⁵ IP Australia (2022) Scoping study on standalone IK legislation. Australian Government. Retrieved July 2023: <https://www.ipaustralia.gov.au/tools-and-research/professionalresources/data-research-and-reports/publications-and-reports/2023/07/03/05/26/scoping-study-on-standalone-iklegislation>

The geopolitical landscape is increasingly complex, and the SERD review comes at a time when there is significant geopolitical disruption, economic uncertainty and threats to international research and science collaboration. The size and scale of Australia means that without international collaboration, advances in scientific knowledge and innovation limits how we can address global problems at a national level. An R&D strategy that encourages international research collaboration provides greater access to talent and infrastructure to build stronger research resilience through targeted diversification.

Australia's R&D system must be responsive and adaptable to global shifts, ensuring that collaborations serve long-term strategic goals and promote private sector investment. Maintaining and broadening our strategic partnerships will be crucial in accessing global expertise and knowledge but shouldn't be done at the expense of our sovereign capability and prosperity. It will be important for Australia to:

- Define current international partnerships that support Australian research capability and provide benefit to the region, and identify new opportunities for such partnerships;
- Explore and investment in international collaboration frameworks and models, including with our region, Europe, the United Kingdom and other like-minded countries to diversify and deepen our research and strengthen sovereign capability;
- Identify opportunities to capitalise on global talent acquisition across all research disciplines.
- Understand research infrastructure investment requirements, taking a national and international approach.

Australia's R&D workforce

Developing a highly skilled and diverse workforce to drive Australia's knowledge economy will require focused investment and strategies across the full education and employment lifecycle. However, as noted in the SERD Review Discussion Paper and recent reports commissioned by the Australian Government (such as the Pathway to Diversity in STEM Review and [ACOLA's Modernising Research Assessment report](#)), Australia's R&D system is facing issues including a lack of diversity in Australia's research workforce and challenges related to mobility and career progression. This report identified practices that can help mitigate such issues, including: promoting equity and diversity, recognising a wider range of research outputs, improving career mobility between academia, government, and industry, and opportunities for system-wide changes in Australia (such as narrative approaches, multi-stage assessment of research proposals, and lottery or strategy-based systems for research funding allocation).

The way research is measured, incentivised and rewarded has a profound impact on the research workforce, influencing the culture in which researchers work, their collaborations and ultimately their careers. The findings in ACOLA's Report provide potential actions to support the development of a robust and inclusive R&D workforce, ensuring that the country remains competitive and innovative on the global stage.

Conclusion

Australia's R&D system stands at a pivotal point, with the potential to drive significant advancements in innovation, economic growth and societal well-being. By strengthening our sovereign capability, enhancing our international collaboration, increasing research funding, improving coordination and developing a skilled workforce, Australia can position itself as a global leader in R&D. These strategic actions will ensure that Australia is well-equipped to navigate the challenges facing it now and into the future.

With strong connections across the entire research and innovation sector, ACOLA and the Learned Academies are well-placed to convene and support a whole-of-government approach to secure independent, balanced and well-informed advice. As part of the SERD Review, ACOLA can convene the Learned Academies to undertake a disciplinary and multidisciplinary opportunity audit across Australia's National Research Priorities and other national challenges to assist the Review Panel in better understanding Australia's research needs and untapped potential.

Please feel free to reach ACOLA at info@acola.org.au or by phone on +61 0484 814 040.

Yours sincerely,

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