

The University of Sydney, Economic Reform Roundtable Consultation, July 2025

The University of Sydney welcomes the opportunity to make this submission to complement those provided on our behalf by Universities Australia, the Group of Eight and the Business Council of Australia.¹

Summary

Ensuring Australia achieves strong and sustainable economic growth is essential for attracting investment, creating jobs, funding equitable services, securing long-term prosperity and building social cohesion.

Clarity of vision is needed to define the sectors where Australia will be globally competitive in 15-20 years so that work can start on building the necessary infrastructure and capability.

Australia's future depends on having the ability to develop, adapt and deploy new knowledge and technologies – particularly in areas like health, energy, digital infrastructure, software, agriculture, advanced manufacturing and defence. This will require higher levels of educational attainment, excellent educational and research infrastructure, quality teaching, and R&D aligned with contemporary technologies.

In the current geopolitical climate, the need for strong sovereign R&D capacity is more pressing than ever. New opportunities are emerging in Europe and the Indo-Pacific for Australia to benefit from the 97 per cent of global advances in knowledge and technologies that occur overseas.² Governments, industry, universities and other research entities need to continue working together to ensure Australia capitalises on strategic educational and research opportunities as they arise.

Our public universities and other publicly funded research agencies have critical roles to play in helping to solve the productivity challenge, as their research, education, training and knowledge translation activities underpin the innovation ecosystem.

The University of Sydney is committed to assisting the Roundtable and with this submission we briefly highlight the scale of the innovation capability challenge Australia faces, then propose 10 ideas to strengthen the contribution Australia's tertiary education and research systems can make to productivity.

Australia's innovation challenge³

It is well understood that the application of knowledge and technology to create new ways of doing things has been the main driver of economic transformation and growth throughout history.⁴

Yet, Australia's current and future capacity for innovation is challenged on many fronts. For instance, our:

- economic complexity is low compared to international benchmarks⁵
- research output is strong but knowledge translation is weak⁶
- R&D intensity is falling despite substantial existing incentives for business⁷
- creation of new-to-world innovations is rare while many firms struggle to innovate⁸
- skills needs are shifting as technologies become more sophisticated, and education must keep up⁹
- private, public and not-for-profit organisations face significant regulatory compliance obligations, which are costly, cause inefficiency and stifle innovation.¹⁰

Ten ideas to strengthen Australia's capacity for innovation

The University proposes for consideration the following 10 ideas to lift Australia's capacity for increased productivity and economic growth through innovation.

Education and skills

1. **Boost Year 12 completion rates, strengthen foundational and STEM skills** to lift education and life outcomes – especially for students from Low SES, regional and First Nations backgrounds. As part of a renewed focus on collaboration, facilitate AI- and STEM-education partnerships between universities, TAFE and schools to upskill educators and bridge the digital divide.¹¹

2. **Review the student income support system** to address the other key barrier to improving tertiary education participation and outcomes – the prohibitive cost for many students of meeting basic living expenses while studying or training.¹²
3. **Establish integrated approaches to address future skills needs in key sectors**, building on successes like the [National Teacher Workforce Action Plan](#) to lead the development of similar collaborative plans for other critical sectors with serious workforce and skills shortages.
4. **Develop a national life-long learning and AI-capability strategy** to enable individuals to continuously develop their skills and knowledge to adapt to changing labour markets and disruptive technological advances like Generative AI. As part of this, ensure that universities and other education providers are addressing contemporary capabilities (specifically AI) in their curricula, assessments and graduate capabilities.¹³
5. **Lift industry innovation capacity** by refining the [National Industry PhD program](#) to better target incentives, streamline administration, and increase flexibility and uptake.

Research and development

6. **Drive sector-wide R&D efforts through mission-based research funding in university compact agreements** to align research efforts with national priorities and the needs of the local communities.
7. **Adopt a national approach to venture capital investment** to bridge the 'valley of death' in research commercialisation and lift economic complexity by creating new industries, firms and jobs.
8. **Target the Research and Development Tax Incentive (R&DTI)** to boost business/university collaborations by adjusting incentives to reward businesses (including small and medium enterprises) that emerge from, or partner with, universities and other public research institutions.
9. **Support national research infrastructure and innovation precincts** by providing long-term funding certainty for the [National Collaborative Research Infrastructure Strategy \(NCRIS\)](#) and by ensuring planning laws, transport and incentives foster physical hubs where businesses collaborate with universities, researchers and students to co-design research, strengthen talent pipelines and accelerate research commercialisation.¹⁴
10. **Boost private investment to lift R&D intensity** by leveraging the [National Reconstruction Fund](#) and incentivising superannuation and philanthropy, to create thriving innovation ecosystems across the country and scale early-stage technology ventures.

Conclusion

As our Chancellor, David Thodey AO, recently stated:

*'Innovation improves the way we build nations and industries, improves the way we learn, the way we deliver better health outcomes, design infrastructure, manage the environment, re-engineer processes, improve our communities... This must be a key part of the future of Australia and it needs to pervade every part of our society.'*¹⁵

In preparing this submission, we have carefully considered the causes of the productivity challenge Australia confronts to develop 10 integrated ideas to strengthen national capacity for innovation, as key to lifting both productivity and economic growth.

We offer these to support the Government and participants in the Economic Reform Roundtable as they seek to address complex issues for the benefit of current and future generations.

Of course, our academic and professional staff experts in fields such as: AI; educational innovation; health; net zero and sustainability; care economy; engineering; economics; industrial relations; gender equality; business; law and regulation; the humanities and social sciences; research commercialisation; and many others relevant to the Roundtable may be engaging directly or would be happy to assist as required.

We look forward to being part of the discussion as it continues.

Endnotes

¹ In doing so, we have noted and adhered to the Treasurer's request for submissions that are: no more than two pages; contain ideas to improve Australia's productivity, build economic resilience or strengthen budget sustainability; and which are in the national (not sectoral) interest, budget neutral (at minimum), specific and practical. Our submission builds on the survey response we provided to the Productivity Commission's five productivity inquiries in June 2025, our [April 2025 submission to the Strategic Examination of R&D](#) and three submissions made to the Australian Universities Accord in [December 2022](#), [April 2023](#) and [September 2023](#).

² See [Australia's Economic Accelerator Advisory Board, 2023-24 Annual Report on research translation and commercialisation, pp.11-12.](#)

³ The Productivity Commission (PC) defines *innovation* as 'the process whereby...organisations and individuals generate or maintain value by creating, adapting or using available knowledge and technology to introduce new or improved products (goods and/or services) or internal business processes.' See: [Productivity Commission \(7 Feb 2023\) 5-year Productivity Inquiry: Innovation for the 98%, Inquiry report – volume 5, p.3.](#)

⁴ Ibid.

⁵ Australia ranks 105th out of 145 countries in the [Atlas of Economic Complexity](#), lowest in the OECD and between Botswana and Côte d'Ivoire. This marks a six-place drop in a decade and 40 places over the last 20 years. As a result, the Atlas forecasts just 1 per cent annual economic growth for Australia over the next ten years, compared to Singapore's 2.8 per cent, the world's most complex economy.

⁶ Australia produces over 3 per cent of global research, most of it high-quality, with just 0.3 per cent of the world's population. Yet only 14 per cent of product-innovative firms introduce new-to-market innovations and Australia ranks last in the OECD for business collaboration with universities and government on innovation. See, [Australia's Economic Accelerator Advisory Board, 2023-24 Annual Report on research translation and commercialisation, pp.11-12.](#)

⁷ While globally R&D intensity is rising, Australia's has shrunk to 1.66 per cent of GDP - just 60 per cent of the OECD average (2.73 per cent). The decline is largely driven by falling business investment, which dropped from 1.37 per cent to 0.88 per cent of GDP between 2009 and 2022. Meanwhile, tax incentives to support business R&D cost the Commonwealth more than \$4 billion annually - 30 per cent of its total investment in R&D each year.

⁸ [Department of Industry, Science and Resources \(12 Feb 2025\) Strategic Examination of Research and Development: discussion paper, p.9-10, Department of Industry, Science and Resources, Science, research and innovation \(SRI\) budget tables 2024-25.](#)

⁹ A country's capacity for innovation and productivity depends on a skilled workforce that can understand, adapt and apply new knowledge, practices and technologies to their own problems. With 9 in 10 new jobs in Australia requiring higher-level skills, providing equitable access to quality tertiary education is expected to become even more important over the coming decade. Major recent reviews have found persistent gaps in foundational skill levels, skills mismatches, barriers to access and lifelong learning. See: Productivity Commission Op.cit. Innovation for the 98%, p.1, p.31, [Productivity Commission \(7 Feb 2023\) 5-year Productivity Inquiry: from learning to growth, Inquiry report- volume 8, p.8, Jobs and Skills Australia, Employment projections for the decade ahead, Australian Universities Accord Final Report \(Feb 2024\).](#)

¹⁰ As we detailed in our June response to the PC's survey, Australia's research-intensive universities must comply with a wide range of laws and regulations from all levels of government. For instance, the University of Sydney currently lists 331 items on its Legislative Compliance Register - a 10 per cent increase in two years. We agree with the Government that the slow accretion of compliance layers over time stifles efficiency and innovation. [Leigh A. The Hon. MP Assistant Minister for Productivity, Competition, Charities and Treasury, \(25 June 2025\) The Progressive Productivity Agenda, Address to McKell Institute, Sydney.](#)

¹¹ As stressed in The University of Sydney (April 2023) [Reimagining Australian Tertiary Education](#), there are opportunities to support deeper, long-term partnerships between schools, TAFE and universities to help boost educational outcomes. See also, <https://www.informedchoices.edu.au/>; [STEM Teacher Enrichment Academy](#); [Educational Innovation, University of Sydney](#); [AI Fluency Sprint](#).

¹² Australia's student income support system was last reviewed in 2011. The Senate Community Affairs References Committee recommended an independent review in 2019 but this did not happen. See, The University of Sydney, Op.cit., pp-18-19.

¹³ Also reconsider reform of the self-education expense tax deduction to allow self-education costs not related to an individual's current employment and encourage the development of national credit and skills recognition platforms. See [Education and training expense deductions for individuals | Treasury.gov.au](#); The University of Sydney (January 2021) [Submission to the Commonwealth Treasury's review of Education and Training expenses deductions for individuals.](#)

¹⁴ Department of Industry, Science and Resources (Oct 2018), [Statement of principles for Australian innovation precincts.](#)

¹⁵ [David Thodey, LinkedIn 12 June 2025.](#)