

SUBMISSION

Submission to the Department of Industry, Science and Resources

Submission to the Possible association to Horizon Europe: request for information

24 October 2025

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.

Association with Horizon Europe presents a timely and strategic opportunity to enhance Australia's research capability, foster international collaboration, and expand commercialisation pathways. Horizon Europe is the European Union's flagship collaborative research program and is anticipated to provide €93.5 billion in funding between 2021-2027. Participation would provide Australian researchers, industry and not-for-profits with access to substantial funding, established networks of high-quality international partners, and structured pathways for commercialisation. Association to Horizon Europe could enable Australia to contribute to and help shape global research, enhancing the visibility, impact, and influence of Australian research internationally. The Australian Government has a role to ensure that engagement with Horizon Europe complements Australia's research priorities, strengthening both international collaboration and domestic innovation.

ATSE makes the following recommendations:

Recommendation 1: Pursue an association to Horizon Europe to strengthen international research partnerships and collaborations and increase national research impact and capability.

Recommendation 2: Establish adequate funding mechanisms to enable Australian researchers to fully participate in Horizon Europe projects, including application assistance and mobility programs.

Recommendation 3: Establish a government agency to coordinate and guide state, territory, and federal government research funding (including research infrastructure funding) to ensure its efficient and strategic use, including funding for Horizon Europe.

Recommendation 4: Support Australian researchers and firms to use Horizon Europe association to expand commercialisation opportunities by accessing larger markets, industry partners, and European innovation pathways.

Strengthening Australian R&D through association to Horizon Europe

International R&D partnerships are critical for increasing Australia's innovation capability. Australia relies heavily on international contributions for national R&D. In 2024, the United States government alone contributed \$386 million in funding to collaborative projects with Australian researchers. This amounts to almost half of the entire annual budget of the Australian Research Council (Hare 2025). However, recent shifts in the United States' R&D funding priorities have created uncertainty for collaboration opportunities for Australian researchers (Carstens 2025). This is particularly concerning as Australia's total funding for R&D has been falling since 2009, from 2.24% of GDP to 1.66% in 2021-22 (Hare 2025). The government's share of this funding has almost halved over the same period, dropping to 0.53% of GDP (Hare 2025; Department of Industry, Science and Resources 2025a). Australia's R&D investment is now only 60% of the OECD average of 2.73% of GDP (Department of Industry 2025b). Business investment in R&D is currently standing at only 0.9% of GDP, well below the OECD average of 1.99% (Australian Bureau of Statistics 2025).

Australia has a long history of research and innovation collaboration with Europe, and the EU-Australia Science and Technology Cooperation Agreement has been operating for 31 years (European Commission 2024). The EU is Australia's top collaborator in research, and in the last 10 years, roughly one-third of Australian papers with an international collaborator were from the EU (Haymet 2025). Strengthening this relationship through further cooperation can benefit Australia by enhancing bilateral ties with a partner that holds shared values and close political, economic and cultural ties, including support for democratic governance and rules-based international order. Horizon Europe offers an opportunity for innovation and collaboration to help bridge part of this gap and diversify Australia's international research collaborations. As one of the world's largest funding programs for research and innovation, participation can supplement and leverage Australia's national funding. The program's well-established governance, protocols, and methodologies provide a robust framework for structured collaboration and impact.

Over 900 Australian entities have participated in 755 EU-funded projects worth €36 million over three decades, and over 250 projects are currently running (European Commission 2024; Sinclair 2024). New Zealand is expected to invest NZ\$50.18 million from its association in 2023 until 2028, and as of January 2025, it has secured participation in projects worth NZ\$386 million (Rašković 2025). New Zealand also expects to double its joint projects from 23 to 40-50 following the association, suggesting similar scaling potential for Australia (Matthews 2023). The size of Horizon Europe grants is significant, with the smallest Horizon Europe projects worth roughly AU\$4 million, ten times that of an average Australian discovery grant (Sheehy 2025). The program also offers a pay-as-you-go membership model, meaning the Australian government will not contribute financially to the program until Australian researchers are successful in securing projects (Sheehy 2025). Increased investment in R&D is expected to deliver significant economic benefits for Australia, with every dollar of R&D investment generating an average of \$3.50 in economy-wide returns (CSIRO Futures 2021). Horizon Europe estimates that the program offers an even greater return, with every euro invested today generating up to €11 by 2045 (European Commission 2025a). Association to Horizon Europe is an opportunity to enhance Australian research and increase economic benefits.

Association would enable contribution to shaping the program's governance, policies and research priorities and allow Australia to participate directly in co-funded European partnerships, including initiatives such as [Biodiversa+](#), the European Biodiversity Partnership (Biodiversa+ 2025; European Union 2024). Access to Biodiversa+ and similar initiatives supports Australian researchers and organisations to work alongside leading international organisations and generate actionable knowledge, expand evidence bases, and provide science-based support for policymaking. The association would be mutually beneficial for the European Union and other associate members of Horizon Europe. Horizon Europe members would gain access to Australia's world-leading expertise in fields such as marine science, ecosystem modelling, applications of Traditional Knowledge, and emerging renewable technologies, while Australia can strengthen global research connections and capability through participation in large-scale European collaborations.

Horizon 2020 grantees, the predecessor program to Horizon Europe, generated 276,000 peer-reviewed publications, 3.9% ranking in the top 1% of the most cited publications worldwide (Brent and Naujokaitytė 2024). Basic research supported by the program has translated to scientific breakthroughs in medical sciences, quantum mechanics, chemical engineering and composite materials (Brent and Naujokaitytė 2024). Horizon Europe is on a similar trajectory and is estimated to produce 179,000 peer-reviewed scientific publications by 2030 (European Commission 2025b). Publications with cross-border collaboration have been found to have a 13% higher citation impact, suggesting enhanced research impact and visibility for Australian projects in collaboration with the EU (OECD 2024). Australian researchers could benefit greatly from an association to Horizon Europe through increased robust research impact and capability. International initiatives have also improved policymaking in fields such as climate science, engineering, agriculture, intellectual property, commercialisation and education and health outcomes (O'Sullivan et al., 2023).

Recommendation 1: Pursue an association to Horizon Europe to strengthen international research partnerships and collaborations and increase national research impact and capability.

Building domestic capacity for global participation

Strong domestic investment will be needed to ensure Australian researchers from academia and industry have the foundations to fully benefit from association to Horizon Europe. Horizon Europe is a highly competitive scheme, with €159 billion worth of projects above the quality threshold going unfunded in 2020 (Brent and Naujokaitytė 2024). Australians proposing to lead or join a research consortium may require support to be well-versed in the funding criteria and expected outcomes to maximise their chance of success. This may be especially challenging for small and medium enterprises or new organisations. Institutional structures for application assistance and mobility programs are recommended to ensure maximum participation and impact for Australian researchers to coordinate these efforts. This would be particularly beneficial for businesses and not-for-profits seeking to access the Horizon Europe scheme.

Association to Horizon Europe is a strategic opportunity with the potential to contribute to increased R&D investment, complementing investment in Australian-led research. ATSE recommends establishing a national agency to oversee and align research funding across state, territory, and federal levels, including research infrastructure investment. Such an agency would promote efficient, strategic allocation of resources and enhance Australia's ability to address national priorities while leveraging international opportunities. This proposal is outlined in ATSE's submissions to the Strategic Examination of Research & Development (ATSE 2025a). Establishing a government agency is also important for the development of Australia's national research infrastructure and the implementation of the 2026 NRI Roadmap, which supports Australia's ability to participate in global research and host collaborative projects. A further benefit of a dedicated national funding agency would be to interface with international funding opportunities, including Horizon Europe, and support researchers to adapt high-quality near-miss proposals for these opportunities. This agency would also be well placed to deliver application support and assistance for applications for Horizon Europe funding and to coordinate National Contact Points for the program.

Recommendation 2: Establish adequate funding mechanisms to enable Australian researchers to fully participate in Horizon Europe projects, including application assistance and mobility programs.

Recommendation 3: Establish a government agency to coordinate and guide state, territory, and federal government research funding (including research infrastructure funding) to ensure its efficient and strategic use, including funding for Horizon Europe.

Expanding commercialisation and innovation pathways

Australia continues to face challenges in research commercialisation, driven by low levels of industry-research collaboration and limited overarching institutional and policy support (Industry Innovation and Science Australia 2023). Significant barriers to commercialisation include Australia's low industry capacity to innovate and a lack of a systematic approach to support the commercialisation of research (ATSE 2025b; Industry Innovation and Science Australia 2023). Association to Horizon Europe offers Australian researchers a formal and structured pathway to commercialisation. Pathways include the [dissemination and exploitation strategy](#) designed by the European Commission (Research and Innovation European Commission 2025). The European Commission aids researchers in implementing this strategy through free, tailor-made services for dissemination, helping them share research results through appropriate channels, and for exploitation, enabling the application of results to develop, create, market, or improve products and processes.

The Commission also offers the provision of tools to increase visibility and recognition of successful research results, and promotion of science diplomacy and academic freedom protection. Horizon Europe has linkages to the business innovation support instrument, Enterprise Europe Network, which is free of charge for most small and medium-sized enterprises and businesses and can help Australian researchers participating in Horizon Europe navigate product development, launch and commercialisation processes (European Commission 2024). The Network is active in more than 60 countries, including both within and outside the EU and has a network of over 3000 experts and 600 member organisations (Frontier Economics and BMG Research 2023). Association to Horizon Europe would allow researchers access to these pathways to expand commercialisation opportunities by accessing larger markets, industry partners, research infrastructure and European innovation initiatives.

Recommendation 4: Support Australian researchers and firms to use Horizon Europe association to expand commercialisation opportunities by accessing larger markets, industry partners, and European innovation pathways.

ATSE thanks the Department of Industry, Science and Resources for the opportunity to respond to the Possible association to Horizon Europe: request for information. For further information, please contact academypolicyteam@atse.org.au.

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