GROUP OF EIGHT AUSTRALIA

Pivotal:

Australia's Horizon Europe opportunity

THE UNIVERSITY OF WESTERN AUSTRALIA

MONASH University

Australian National University

THE UNIVERSITY of ADELAIDE

THE UNIVERSITY OF MELBOURNE

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THE UNIVERSITY OF QUEENSLAND AUSTRALIA

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Contents

Securing Australia's place at the heart of global research and innovation

The Group of Eight (Go8) urges the Australian Government to secure Australia's future as a pivotal player in global research and innovation. Australia must become an associate member of Horizon Europe, the European Union's flagship research and innovation program.

Why this matters:

- **From peripheral to pivotal:** Associate membership will enable Australian universities, businesses and researchers to be in the centre of the world's largest collaborative research platform, ensuring we are not just participants, but leaders and agenda setters in projects with global impact and significance.
- **Scaling up and out:** Horizon Europe provides the scale, networks, and funding that will take Australian research and innovation to new heights and new markets, enabling us to deliver impact at a scale simply not possible on our own or with ad hoc partnerships.

- **Realising Australia's full potential:** Our universities, businesses and researchers are ready to deliver solutions to the world's most pressing challenges. Associate membership will unlock new markets, accelerate commercialisation, secure our access to cutting edge data and infrastructure, and ensure that our innovation benefits our nation and the world.
- **A bridge to the Asia-Pacific:** Europe is recognising that it needs to increase its engagement with the Asia-Pacific, home to 60 per cent of the world's population. Now is the time to leverage and lean in to our role as an economic, cultural and logistical bridge to the Asia-Pacific and joining Horizon Europe can be a pillar of that effort.

The evidence is compelling.

As demonstrated in this collection of case studies, Australia's current limited access to Horizon Europe has resulted in missed opportunities, stalled collaborations, and unrealised impact. By joining as an associate member, we can remove these barriers and ensure that Australia's researchers and businesses are empowered to deliver on their promise and potential.

Introduction

On behalf of the Group of Eight (Go8), I am pleased to present this collection of case studies that illustrate the compelling case for Australia to pursue formal association with Horizon Europe.

Australia stands at a strategic inflection point. Our future prosperity, national security, and global influence depend on our ability to be at the forefront of international research and innovation.

Horizon Europe—the European Union's flagship research and innovation program—offers a once-in-a-generation opportunity for Australian researchers, institutions, and businesses to participate in and lead transformative, multi-disciplinary collaborations on a global scale.

The Go8 universities, recognised globally for excellence in health and medical sciences, physical sciences, defence, space, and artificial intelligence, have already demonstrated the value of engagement with Horizon Europe. These case studies show that when Australian institutions are empowered to collaborate internationally, the benefits extend beyond academia—driving commercial innovation, strengthening communities, and contributing to global solutions.

The challenges facing the world today—climate change, health crises, technological disruption, and economic resilience—require coordinated, cross-border responses. Australian researchers and businesses are ready to contribute, but to do so effectively, they must have access to the tools, partnerships, and platforms that enable impact at scale and create commercial opportunities.

Horizon Europe is not just a funding mechanism – a simple equation of money in and money out – it is a platform for Australia to scale our research and development up and out, participate in and lead large-scale, multi-disciplinary projects, and ensure that our discoveries and innovations reach their full potential on the global stage.

However, our current limited access to Horizon Europe constrains this potential. The case studies presented here highlight both successful collaborations and missed opportunities—projects that could have been accelerated, partnerships that remained unrealised, and innovations that lacked the support to scale globally.

To fully harness Australia's research strengths, we must ensure our researchers are not positioned on the periphery, but are empowered to lead, partner, and deliver impact—through Horizon Europe and beyond.

It is our shared goal to ensure that Australia capitalises on every opportunity to contribute to and benefit from global innovation, and that our expertise is brought to bear on the world's most pressing challenges.

Vicki Thomson
Go8 Chief Executive

Horizon Europe is not just a funding mechanism – a simple equation of money in and money out – it is a platform for Australia to scale our research and development up and out, participate in and lead large-scale, multi-disciplinary projects, and ensure that our discoveries and innovations reach their full potential on the global stage.

1 Turning plasma science into a launchpad for green innovation and new markets

This case study highlights Horizon Europe's transformative potential for Australia. Full association would equip Australian researchers to lead and expand pioneering initiatives—ensuring our innovations make a lasting contribution to global sustainability and economic prosperity.

The SCOPE project (Surface-COnfined fast-modulated Plasma for process and Energy intensification in small molecules conversion), funded under Horizon 2020 through a six-year, €16 million **ERC Synergy Grant**, enabled the **University of Adelaide** to pioneer plasma-based processes for sustainable chemical manufacturing.

This long-term, large-scale investment allowed the team to develop new materials and processes, test energy efficiency, and explore applications in green ammonia, nano-fertilisers, and biomass extraction. The project not only advanced fundamental science but also catalysed new markets, generated high-impact publications, and supported the creation of commercial spinouts.

It also contributed directly to the establishment of the **ARC Centre of Excellence in Plants for Space**, demonstrating effective knowledge transfer and scalability.

Without Horizon Europe support, such fundamental research and international collaboration would not have been feasible within Australia's current funding landscape. The project exemplifies how EU partnerships can unlock commercialisation pathways, influence policy, and create skilled jobs.

Future opportunities to form Australian spinouts and scale up plasma technologies hinge on full Horizon Europe access.

THE UNIVERSITY of ADELAIDE

- **Organisation:** The University of Adelaide
- **Current R&D Focus:** Advanced materials, energy efficiency, and sustainable chemical processes
- **Scalability:** Horizon funding enabled scaling up plasma plants for new markets and knowledge transfer to the ARC Centre of Excellence in Plants for Space
- **Impact:** New technologies, job creation, skill development, climate resilience, and commercial spinouts
- **Potential:** Access to EU labs, datasets and expertise to accelerate commercialisation and build Australian and EU-based spinouts.

EU-based spin-out

D-CRBN uses industrial carbon conversion to reach net-zero.

D-CRBN's technology removes the need for carbon storage (CCS) and converts CO_2 into valuable chemical molecules through plasma Carbon Capture and Utilization (CCU).

CO_2 is recycled at an industrial scale and enables a circular net-zero future for industrials, petrochemicals, and maritime transport.

2 Creating a global hub for life-saving antimicrobial resistance

This case study exemplifies how Horizon Europe can serve as a strategic multiplier for Australia's efforts to combat antimicrobial resistance (AMR). Formal association would unlock vital funding opportunities, accelerate the commercialisation of Australian-led innovations, and position Australia as a global leader in AMR research and innovation.

Monash University leads Australia's response to antimicrobial resistance (AMR) – a growing global health crisis with profound economic and societal implications. Despite strong international partnerships and a European base in **Prato, Italy**, Monash's exclusion from **Horizon Europe** limits its ability to scale clinical trials, influence EU policy, and access over **€228 million** in upcoming AMR funding calls. Formal association with Horizon Europe would enable Monash to expand its Indo-Pacific network and lead global AMR solutions.

Monash's flagship initiatives, including the **Monash Phage Foundry**, the **AMR Social Science Network**, and the **Centre to Impact Antimicrobial Resistance**, are ready to scale through EU collaboration. Missed opportunities include access to EU datasets, resource pooling, and participation in large-scale clinical trials essential for accelerating AMR solutions.

With campuses across Asia and Europe, Monash is uniquely positioned to bridge EU and Indo-Pacific efforts, offering a strategic platform for global coordination.

MONASH University

- **Organisation:** Monash University
- **Current R&D Focus:** Bacteriophage therapy, AI diagnostics, new antimicrobials, stewardship, and genomics
- **Scalability:** Horizon Europe access would enable multinational trials, policy engagement, and participation in €228M funding calls
- **Impact:** Improved patient outcomes, policy reform, industry engagement, and regional leadership in AMR.

New potential by leveraging existing investment

Australia has invested $42 million in AMR research over the past decade, including:

- $3 million from NHMRC-JPIAMR for international collaboration
- $5 million from the MRFF to combat AMR in aged care
- $34.5 million awarded to the SAAFE CRC to strengthen agribusiness and environmental responses over the next decade.

AMR remains a significant economic threat. If left unaddressed, it could reduce Australia's GDP by up to **$283 billion by 2050**. The **Australian Antimicrobial Resistance Network (AAMRNet)** has called for a **$135 million AMR Action Package** in its 2025–26 pre-budget submission to protect Australia and the region from this escalating silent pandemic.

3 Delivering life-changing early intervention for children with cerebral palsy

This case study demonstrates the transformative potential of Horizon Europe for Australian-led health innovation. Formal association would empower the University of Queensland and other institutions to scale life-saving interventions globally, strengthen Australia's leadership in disability research, and deliver lasting impact for vulnerable populations.

The University Of Queensland
AUSTRALIA

The **BornToGetThere program**, led by the **University of Queensland's** Cerebral Palsy and Rehabilitation Research Centre, has transformed early detection and intervention for infants at high risk of cerebral palsy—particularly in **First Nations communities** and **low-resource settings** such as **Sri Lanka** and **Georgia**.

Funded through Horizon Europe, the program developed and tested the culturally adapted **LEAP-CP intervention**, across seven international sites. UQ led the randomised controlled trial phase (RCT), contributing IP, training frameworks, and health economics expertise. The program has delivered measurable improvements in early childhood disability care and public health outcomes.

Without Horizon Europe, this work would not have been possible in low-resource countries. Domestic funding constraints have limited the program's ability to scale, forcing reliance on philanthropic support.

Full access to Horizon Europe would enable UQ to join future consortia as an equal partner, expand into India and Brazil, and accelerate global impact in early childhood disability care.

- **Organisation:** University of Queensland, Queensland Cerebral Palsy and Rehabilitation Research Centre
- **Current R&D Focus:** Early intervention program development, randomised controlled trials
- **Scalability:** Currently limited by domestic funding; international expansion reliant on philanthropy
- **Impact:** Improved public health outcomes, workforce development, policy influence and peer-reviewed publications.

4 Creating a powerhouse for global biomedical imaging

This case study highlights the strategic value of Horizon Europe for Australia's biomedical imaging sector. Formal association would position NIF to lead and scale global collaborations, ensuring Australia remains at the forefront of imaging science and health innovation.

The **National Imaging Facility (NIF)** – Australia's advanced biomedical imaging network – has established strong collaborative ties with **Euro-BioImaging**, a European Research Infrastructure Consortium (ERIC), through joint workshops, staff exchanges, and digital infrastructure initiatives. However, **without formal access to Horizon Europe, these partnerships remain informal, underfunded and limited in scope**.

Association with Horizon Europe would unlock transformative opportunities for NIF, including participation in global imaging studies, federated AI research, and international clinical trials. It would also accelerate radiopharmaceutical development, enhance Australia's role in global health innovation, and enable harmonised data standards and shared infrastructure investment.

NATIONAL IMAGING FACILITY

The missed opportunity is not only scientific – it is strategic. Without Horizon Europe, Australia's ability to co-lead in imaging science and contribute to global health, environmental, and technological challenges is constrained.

- **Organisation:** National Imaging Facility (NIF)
- **Partners:**
  - » 14 Australian delivery partners, (universities and medical research institutes)
  - » 200+ user organisations across Australia
  - » Thousands of downstream users
- **Current R&D Focus:** Biomedical imaging, data sharing, training, and digital infrastructure
- **Scalability:** Horizon Europe would enable global data standards, joint infrastructure investment and accelerate clinical translation
- **Impact:** Improved health outcomes, efficient infrastructure investment, and long-term scientific partnerships.

Potential impact of Horizon Europe

Australian membership in Horizon Europe would provide a powerful mechanism to strengthen the existing partnership – not only benefiting national and continental-scale research infrastructures such as NIF and Euro-BioImaging, but also connecting complementary research communities across borders. It would open the door to deeper scientific exchange, larger-scale international projects, and new opportunities to address global challenges in health, environment, and technology through imaging science.

Expanded collaborations made possible through Horizon Europe include:

- **Global initiatives in imaging data:** enabling shared standards and interoperability
- **Large-scale human imaging studies:** leveraging diverse populations and advanced methodologies
- **Participation in international clinical trials:** accelerating translation from research to patient care
- **Radiopharmaceutical development:** from discovery to clinical application
- **Federated AI studies:** pooling imaging data to drive innovation while protecting privacy.

5 Scaling up the future of melanoma detection globally

This case study highlights the strategic value of Horizon Europe in scaling Australian-led health innovation. With formal access, the University of Queensland can continue to deliver life-saving technologies and strengthen Australia's leadership in AI-driven medical diagnostics.

The **iToBoS** (Intelligent Total Body Scanner for Early Detection of Melanoma) project, led by the University of Girona with the **University of Queensland** as a key partner, is revolutionising skin cancer diagnostics through the development of a **robotic full-body scanner** and **AI-driven personalised risk assessment tools**.

Supported by €11.7 million in Horizon Europe funding and co-investment from the NHMRC, the project has created a diverse imaging dataset from **Australia, Spain, and Italy**, and advanced the use of **explainable AI** in melanoma detection.

With Australia's high melanoma incidence, UQ provided a critical testbed for clinical validation and contributed expertise in imaging, training, and health economics.

Despite its success, UQ's exclusion from full Horizon Europe eligibility has prevented full participation in follow-on initiatives such as **PIECES** and emerging AI dermatology consortia. Formal association would enable UQ to scale clinical trials, expand datasets, and commercialise its imaging and AI innovations—positioning Australia as a global leader in skin cancer diagnostics.

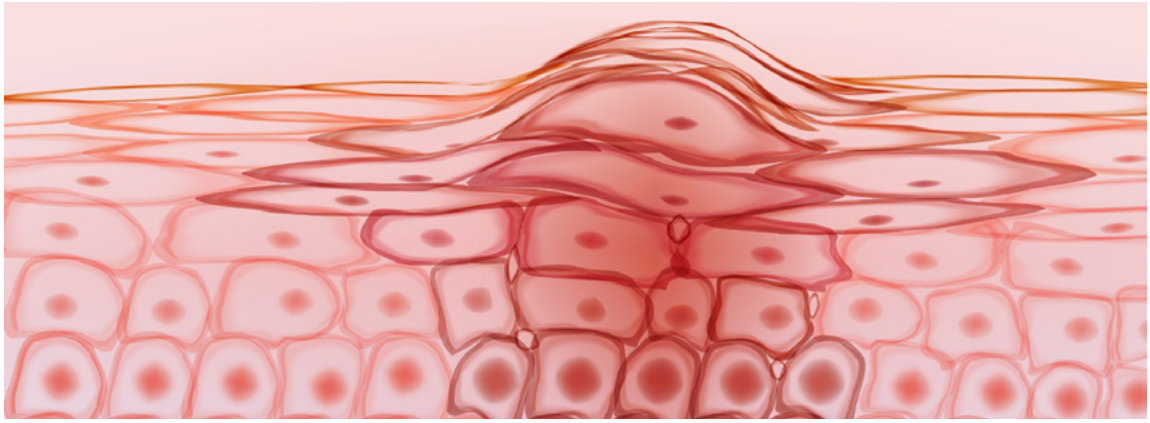
THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

- **Organisation:** University of Queensland
- **International Partners:** University of Girona, Hospital Clinic of Barcelona, IBM, Bosch and Canfield
- **Current R&D Focus:** AI-driven diagnostics, imaging technologies, personalised risk assessment
- **Scalability:** Horizon Europe access would enable expansion of trials, industry partnerships, and global datasets
- **Impact:** Improved melanoma detection outcomes, new diagnostic technologies, open datasets and peer reviewed publications.

Unlocking future potential through Horizon Europe

Full Horizon Europe association would allow UQ to:

- Participate in **large-scale international clinical trials**
- Expand AI dermatology research through **PIECES and related consortia**
- Accelerate **commercialisation** of imaging and diagnostic tools
- Contribute to **global standards** in skin cancer detection and AI ethics
- Leverage EU infrastructure and expertise to enhance innovation and patient care.



6 Creating a pandemic-proof vaccine

This case study highlights Horizon Europe's strategic role in advancing global vaccine innovation. Formal association would enable Australian institutions like the University of Sydney to fully engage in future CEPI-Horizon initiatives, ensuring our research contributes meaningfully to global preparedness and equitable vaccine access.

The **University of Sydney** is a lead partner in a US$19.3 million global consortium funded by the **Coalition for Epidemic Preparedness Innovations (CEPI)** to develop a 'variant-proof' COVID-19 vaccine using a protein subunit platform. In collaboration with **Bharat Biotech (India)** and **ExcellGene (Switzerland)**, the project aims to deliver broad protection against current and future SARS-CoV-2 variants, while contributing to CEPI's **global adjuvant library**—a critical resource for rapid pandemic response.

THE UNIVERSITY OF SYDNEY

While CEPI funding has supported early-stage development, **access to Horizon Europe** would enable the University of Sydney to:

- Expand clinical trials across Europe and the Indo-Pacific
- Deepen partnerships with EU research institutions
- Accelerate innovation in vaccine design and delivery.

The project exemplifies how Australian science can lead globally—if equipped with the right platforms and partnerships to scale if equipped with the right platforms and partnerships to scale.

- **Organisation:** University of Sydney
- **Current R&D Focus:** Protein subunit vaccine development, adjuvant library, clinical trials.
- **Scalability:** Horizon Europe access would enable broader collaboration, faster vaccine development, and global deployment
- **Impact:** Strengthened global health security, new vaccine technologies, and equitable access to pandemic countermeasures.

CEPI and Horizon funding

CEPI, launched in 2017, is a global partnership accelerating vaccine development against epidemic and pandemic threats. Horizon Europe has been a key co-funder of CEPI-led initiatives, including:

- **€100 million** from Horizon 2020 for vaccine R&D against emerging diseases
- **$12.5 million** for AdaptVac's filovirus vaccine consortium
- **$57 million** for Imperial College London's inhaled/nasal COVID-19 vaccine trials
- **$41.3 million** for Valneva's chikungunya vaccine trials in vulnerable populations
- **$25.9 million** for WBVR's Rift Valley fever vaccine clinical trials
- **$28.5 million** for UC Davis-led RVF vaccine trials in Tanzania.

7 Linking continents to secure food, water, and ecosystems

This case study demonstrates how Horizon Europe can amplify Australia's environmental research impact, support innovation, and strengthen global resilience in food, water, and ecosystem security.

The **OzCZO (Australian Critical Zone)** network, led by the **University of Western Australia**, monitors Australia's ancient landscapes to understand soil, water, and ecosystem resilience under climate stress. With five observatories across diverse environments, OzCZO generates unique data that informs global models of carbon cycling, hydrology, and sustainable agriculture.

Despite its scientific significance, OzCZO's integration with European Critical Zone networks remains limited due to Australia's lack of formal access to Horizon Europe. This restricts opportunities for comparative science, harmonised data standards, and joint technology trials with European partners.

Formal association with Horizon Europe would enable:

- Comparative research between Australia's nutrient-poor soils and Europe's glacial terrains
- Expansion of global testbeds for climate adaptation and sustainable agriculture
- Researcher exchanges and long-term collaborative programs
- Development of interoperable datasets and global calibration protocols for environmental monitoring tools.

It would also support the commercialisation of Australian innovations including **EcoDetection's ion electrophoresis "lab-in-the-field" water sensors**, developed at UWA and **Exige's soil moisture technology**, with potential adaptation for crop surface wetness detection—offering early warning for mould and waterborne disease risk.

- **Organisation:** University of Western Australia (with multiple Australian partners and supported by an ARC LIEF grant)
- **Current R&D Focus:** Environmental monitoring, soil and water management, climate adaptation
- **Scalability:** Horizon Europe would enable multi-climate validation, joint technology trials and expanded international collaboration
- **Impact:** Improved climate resilience, sustainable agriculture, and global leadership in environmental science.

Unlocking global potential through Horizon Europe

Currently, OzCZO faces limited domestic funding pathways, making long-term sustainability and scale-up challenging. Horizon Europe would transform OzCZO from a nationally focused initiative into a fully integrated part of a **global research infrastructure**, capable of addressing shared environmental and agricultural challenges at scale.

Formal association would:

- Enable **multi-climate validation** of Australian technologies across European Critical Zone observatories
- Allow the OzCZO to move from a nationally focused initiative to a fully integrated part of a global network which would be capable of addressing shared environmental and agricultural challenges at scale
- Create **long-term, large-scale collaborative programs** with new partners
- Expand monitoring into **underrepresented climate zones**, including arid and desert regions that are critical for agriculture. This includes an ion electrophoresis "water quality lab in the field" (developed with Australian start-up EcoDetection, unique to UWA) and Exige soil moisture technology with potential adaptation to measure wetness on crop surfaces—offering early warning for mould and waterborne disease risk.

8 Developing ways to tackle malaria through vaccines

This case study demonstrates that Australia has critical skills and expertise in key fields like vaccine development which means our researchers are key participants in globally significant challenges like tackling malaria. Full association with Horizon Europe would allow us to take full advantage of this opportunity and open direct funding opportunities.

Malaria is a major global health challenge, with an **estimated 249 million cases and 608,000 deaths in 2022**, disproportionately affecting vulnerable populations. The **EU-funded CAPTIVATE project** and partnership is committed to creating a **next-generation malaria vaccine** that targets multiple stages of the deadliest malaria parasite, P. falciparum.

A European Vaccine Initiative (EVI) coordinated project aims to address the main bottlenecks in malaria vaccine development to create more efficacious vaccine against P. falciparum by targeting multiple developmental stages (sporozoite, liver and blood-stage).

The consortium includes eight prestigious partners from Europe and UNSW and is the result of an €8.2M grant from Horizon Europe to fund the 2023–2028 project.

It is difficult to expand UNSW's involvement as resources are unable to be directly shared with UNSW due to Australia being outside of the Horizon Europe. As a work around, some of the research is being funded through a service contract which took many months of negotiation and will likely deliver €300,000 to fund the R&D program. The actual costs are nearer to €500,000 with the additional costs absorbed by NHMRC funding and Gates funding to the UNSW partner lab (leveraging shared/common resources).

- **Organisation:** University of New South Wales as part of the CAPTIVATE project with eight prestigious European partners
- **Current R&D Focus:** Next generation vaccines, preparing new methods for human trial, traditional immunological analyses, innovative single immune cell sequencing, and artificial intelligence (AI)
- **Scalability:** Greater market access, new funding sources, establishment of new vaccine facilities
- **Impact:** Reduced cases of malaria globally, improved public health with a huge global health and economic impact potential.

Becoming a Horizon Europe associate member would enable:

- Further access to new markets, industry partners and data
- Greater development of scientific and technical skills and capacity
- Improved direct access to EU funding
- Increased likelihood of matched funding, e.g. NHMRC schemes that match funding from EU consortia applications
- Access to the vibrant and extensive EU research community and integration into one of the most powerful blocks of researchers in the world.

9 Driving the adoption of hydrogen for clean energy

This case study shows that Australian universities like the University of New South Wales are already sought out as valuable partners for industrial transformation in Europe. Full access to Horizon Europe would create an opportunity for Australia to be directly involved with these initiatives and which could then help to deploy these advances locally.

As well as meeting the needs of energy-intensive sectors in Luxembourg, Luxembourg Hydrogen Valley (LuxHyVal) serves as a blueprint for **developing integrated hydrogen ecosystems**—advancing green energy solutions that can be developed around the globe.

LuxHyVal is a pioneering five-year initiative funded by Horizon Europe which aims to **accelerate the decarbonisation of Europe's industrial sector by 2030** through the establishment of a flagship hydrogen valley in Luxembourg, driving the adoption of hydrogen as a clean energy source.

The trailblazing project will deploy a 5 MW electrolysis facility to produce **green hydrogen at scale**. This production capacity is expected to replace the majority of fossil-based hydrogen currently used in Luxembourg, showcasing hydrogen's potential as a sustainable and efficient energy solution for both industrial processes and mobility applications.

UNSW is one of 19 partners in the consortium, which has secured up to an **additional €47 million in funding** from the Luxembourg Government. This support will cover up to 45 per cent of capital expenditures and provide operational subsidies of up to €7 per kilogram of hydrogen over a ten-year period. The initial Horizon Europe funding was instrumental in **unlocking these public funds**, signalling strong governmental commitment to the hydrogen economy.

UNSW has built a reputation and is getting more invitations to join other Horizon Europe projects like exploring the decarbonisation of green metal value chain with industry partner Epiroc, LUT University (Finland) and University of Putra Malaysia. This has come on the back of UNSW projects including the HySupply project, SuSteelAG project and HyGATE project funded by the Australian and German Governments and Business Finland funded projects on Power-to-X (processes and technologies that convert renewable energy and sustainable materials into power, fuels and clean chemicals).

- **Organisation:** University of New South Wales as one of 19 consortium partners
- **Current R&D Focus:** Green hydrogen, integrated hydrogen ecosystems, industrial transformation, technoeconomic assessment of emerging technologies
- **Scalability:** Benchmarking Australian tech at European testing facilities, developing tech to EU standards and regulations.

Ongoing and future impacts:

- Access to new markets, industry partners and data to support Australia's R&D and clean energy goals
- New research and development partnerships between industry, university and government partners across Europe
- Greater global influence in renewable, clean energy and climate policy
- Skill and capacity development
- Regional development, job creation and energy security
- Energy diversification, grid stability and storage
- Reduced greenhouse gas emissions, improved air quality and lower water and soil contamination.

10 Exploring distant galaxies sustainably

This case study is an example of the complex, decade-spanning, international infrastructure projects needed to enable scientific discovery in key fields like astronomy. Association with Horizon Europe would allow Australia to be a direct participant in these projects and contract more work locally.

Horizon Europe is funding a concept study for a groundbreaking facility – **the 12-metre Wide-Field Spectroscopic Telescope (WST)** – which aims to establish WST as the next major observatory under the **European Southern Observatory (ESO)**. WST will enable transformative science and unexpected discoveries and has been designed from the ground up with low environmental impact.

UNSW is the co-lead (with University of Vienna) of the sustainability component of this project, ensuring that both construction and operations of the telescope are run as sustainably as possible. It is developing a process to ensure the environmental impact of each component of the telescope is considered in the planning process, serving as a model for future astronomy and other large-scale infrastructure projects.

The concept study will develop a comprehensive plan for the WST, covering telescope and instrument design, site selection in Chile, scientific case development, survey planning, operational modelling, and innovative data processing strategies to maximise scientific impact.

The telescope will focus exclusively on wide-field optical spectroscopic surveys, targeting everything from distant galaxies to objects in our solar system. Over five years, it will **collect spectra from 250 million galaxies and 27 million stars and gather four billion spectra**—an achievement that would take decades with current instruments.

- **Organisation:** University of New South Wales as part of 19 institutions across Europe and Australia
- **Current R&D Focus:** Sustainability, environmental impact
- **Scalability:** Other international collaborations, sustainability of massive infrastructure projects
- **Impact:** Global collaboration, massive data acquisition, transformative science and new discoveries in cosmology.

What could we achieve with access to Horizon Europe?

With direct access to Horizon funding, the project would be able to hire Australian (instead of just European) partners to consult on the full life-cycle analysis of the environmental impact of the instrument.

Closer integration on this project would help Australia's case to join the European Southern Observatory, which is the top recommendation of the Australia's Astronomy Decadal Plan 2026–2035. That would have strong benefits for the advancement of astronomy in Australia, but also economic benefits from the development of high-tech instrumentation to be developed and built in Australia for these globally competitive facilities.

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