



Trailblazer
Recycling &
Clean Energy

Benefits for Industry Partners

A collaborative partnership between



UNSW
SYDNEY



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

Supported by the Australian Government

The Trailblazer for Recycling and Clean Energy (TRaCE) is moving clean energy and recycling technologies from research to products into global markets.

The collaborative TRaCE program will strengthen university capability to support and fast track commercialisation, provide infrastructure for technology development and scale-up, and deliver the critical skills needed to propel clean energy industries into the future.

The successful and accelerated commercialisation of recycling and clean energy research is necessary to support the domestic production of price-competitive clean energy using low emissions and scalable technologies and position Australia as a world leader in the use and export of recycling technology and materials.

Research themes

TRaCE aims to support academic-industry collaboration to address challenges hindering decarbonisation, including the development and adoption of low-carbon technologies and materials, their integration into existing systems, and scalability for larger markets.

UNSW Sydney and University of Newcastle TRaCE foundation projects target four complementary technology themes to shift toward electricity-based manufacturing derived from renewable energy sources.

Where electrification is not applicable, green fuels and chemicals must become cost-effective and efficient alternatives to fossil-fuel based products. Further, once green products are more widely in use, novel technologies are required to recycle waste into valuable manufacturing inputs, thereby supporting a circular economy.

We're inviting expressions of interest to partner with us.

How will TRaCE benefit industry?

As industries undergo an energy transition, more businesses are looking to make their operations more efficient and sustainable. Partnering with us is an opportunity to join a collaborative network of government, academia, and industry. Your investment will support the growth of your business by keeping you in-step with the newest energy research and technologies, give access to world-class research infrastructure and manufacturing facilities spanning Greater Sydney to the Hunter region, provide best practice training programs for your workforce and a pipeline of potential new talent.



Next Generation Solar PV and Systems

Projects that accelerate integration and scale of solar technologies.



Electrification, Energy Systems and Storage

New projects that drive manufacturing in industry electrification, clean energy systems and storage.



Sustainable Fuels and Chemicals Manufacturing

New projects that commercialise green fuels and chemicals.



Recycling and MicroFactories™

New projects for recycling, reforming and reuse of waste materials.

TRaCE will offer:

Critical Skills

Micro-credentials and Postgraduate Award Programs to up-skill staff

In a rapidly evolving market with new energy technologies, it is crucial to provide your workforce with targeted and up-to-date training. By partnering with us, you will be able to contribute to the development of flexible, micro-credentialed short courses that address the immediate skill gaps in your industry, or the purposely designed postgraduate programs ranging from Graduate Certificates to Masters programs.

Staff exchange between industries and universities

The TRaCE Industry Fellowship Program will facilitate staff placements and exchanges between an industry setting and a university campus. By partnering on this program, your business will benefit from research expertise on-site, while enabling existing staff to tap into cutting-edge research insights at our universities.

Work Integrated Learning placements and projects

We will immerse students through work integrated learning in industrial environments and technical challenges throughout their award-based studies. You will be able to co-design the student deliverables and engage throughout the activities to ensure your business is getting a value-add experience. You will also gain a fresh perspective from students passionate about driving the growth of your business, who will graduate job-ready from their experience in your workplace.

PhD Programs and Research Masters Projects

Do you have an industry challenge that needs solving? Our competitive HDR program is designed to unlock novel ideas and innovative solutions to benefit industry partners. We will support a new cohort of HDR students who are passionate about making industrial operations more efficient and sustainable. By engaging in the PhD and Masters by Research programs, you will also benefit from world-class training and opportunities to collaborate with our network of partners to drive business development, and forge relationships with quality graduates who are equipped to be the industry leaders of the future.

VET and University Pathways

We will invite industry partners and TAFE NSW to co-design and deliver new award and non-award opportunities, including VET pathways and an Apprenticeship Training Program. Our partners will have a direct say about what skills and knowledge are needed when creating programs and pathways to support Australia's recycling and clean energy manufacturing skill base.

Business Development

Rapid responses to research enquiries

There are times when you need a quick solution to a problem. A Technology Translation Squad made up of qualified industrial researchers will be formed to respond to your enquiries. They will assess potential for a short-term project that will make headway on the challenges facing your business.

Matched funding to support new research projects

We will be offering matched funding between \$25,000-\$50,000AUD for eligible SMEs to boost new collaborative research and development projects with researchers. This will give SMEs access to experienced researchers and advanced research facilities and equipment to solve their industry challenge.

Infrastructure

Prototyping workshops and manufacturing precincts

We will build a suite of state-of-the-art industrial research infrastructure to keep innovations moving towards commercialisation. By partnering with us, you will have access to national prototyping workshops and manufacturing precincts. These will enable the rapid development of prototypes for manufacturing, research and testing at an industrial scale.

Hunter Advanced Science and Technology facilities Co-location

As an industry partner, you will have access to a network of co-located Advanced Science and Technology facilities in the Hunter region. Here, there will be potential to conduct product testing and access university researcher expertise to support your business' expansion into new local and global markets. Alongside the UNSW Sydney Entrepreneurial Campus, this continuum of facilities aims to assist your business' growth.

How to partner

Across both institutions, teams are working to shape TRaCE activities. While these activities are taking form, now is the time to get involved with world-leading research across both universities.

The University of Newcastle and UNSW Sydney are both offering unique opportunities and pathways for potential partners to engage and participate in an exciting and diverse range of projects and activities.

Send an enquiry to either university to find out how your business may benefit.

UNSW Sydney
innovationcommunity.unsw.edu.au/partnership

University of Newcastle
newcastle.edu.au/research/partner-with-us

Contact the TRaCE team at
trace@newcastle.edu.au
to express your interest in these initiatives.

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