

Advancing
Research 2030
Excellence
for Impact



THE UNIVERSITY OF
MELBOURNE

The University of Melbourne is a world leader in developing neural technologies. In 1978, our researcher, Laureate Professor Graeme Clark AC, pioneered one of Australia's greatest bioengineering achievements. The multi-channel cochlear implant was the first device to allow severely-to-profoundly deaf people to understand speech. This innovation has had enduring global impact, with over one million people now using a cochlear implant in over 120 countries. The University of Melbourne remains at the forefront of research in neural interfaces, with ongoing work focused on innovative applications in epilepsy, vision loss, paralysis, and other neurological conditions.

Cover image: *Cochlear implant in situ*. Light sheet microscopy / micro-CT image by University of Melbourne researcher Kate Brody, Department of Otolaryngology, the birthplace of the cochlear implant. This image was generated with the support of the University of Melbourne Biological Optical Microscopy Platform (BOMP) and the St Vincent's Institute Micro-CT Facility.

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Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Fishermans Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses) and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners.

In making this Acknowledgment of Country we commit to respectful and responsible conduct towards all others according to the Traditional lores of this land, particularly at times of formal ceremony.



Welcome to Country smoking ceremony, Wominjeka 2024

Welcome from the Vice-Chancellor

A great university is a place that enhances people and builds their resilience – the people who work here, the people who come to study, and the many people and communities whom we work with across the wider city, society and world.

A university is a place that builds and strengthens democracy, by making connections, advancing truth and creating space for respectful debate.

As Australia and other nations face intensifying challenges – from climate change to rising polarisation and increased disruption from technological advances – leading universities must continue to do great research and put that research at the service of communities in need.

In that context, I am delighted to welcome the University of Melbourne's new research strategy, *Advancing Research 2030: Excellence for Impact*.

Through our research at the University of Melbourne, we rise to meet these challenges, helping to save lives, build businesses and create meaning in the world.

Our new strategy builds on a tradition of research excellence which has contributed enormous good throughout our region and around the world. From making critical contributions to human health through some of the best immunology research, to important work by law, social science and humanities, University of Melbourne researchers have long been active collaborators with others in the service of our communities. This includes research conducted on multiple policy fronts including disability justice and the fight against domestic violence.

Today, the University is challenged to go further than ever in advancing the quality and impact of our research. This can be achieved in part by maintaining our longstanding disciplinary excellence and providing an increasingly inspiring educational experience

for our students. The inspiring education that takes place in a research-rich university, an environment where significant work at the frontiers of knowledge is being continually undertaken, creates a pipeline of critical thinkers who go on to build the strength of every sector.

But we must do more. Through strengthened commitment to collaboration and engagement we will ensure our research provides fit-for-purpose solutions to the challenges our communities face.

A distinguishing feature of our research-rich environment is our precincts – dedicated spaces for collaboration with external partners such as the Melbourne Biomedical Precinct in Parkville, Melbourne Connect at the corner of Swanston and Grattan streets in the city, the University's performing and fine arts campus and arts precinct at Southbank, and the emerging engineering and design campus on the Birrarung River at Fishermans Bend.

These complement and build on the many research collaborations long underway at our major Parkville campus, our Shepparton Rural Medicine campus and at our Science campuses at Burnley, Dookie, Creswick and Werribee.

Beyond these campuses and beyond Victoria, the University works hard at strengthening national and international research collaborations, with multiple partners in Australia, across Asia and the Pacific, to Europe and the Americas.

As I have learned in my own research career, the resilience of communities is enhanced through diversity and connectivity. As we strengthen our research engagement and impact in years to come, we will help to build resilience both within and beyond the University.

Professor Emma Johnston AO
Vice-Chancellor



Research at Melbourne

#1

in Australia¹

#19

in the world²

\$956M

research income³

\$1.6B

research expenditure⁴

15K+

research outputs⁵

150+

organisations in our precincts⁶

2000+

research contracts⁷

250K+

logged hours of research instrument time⁸

8400+

research publications with an international author⁹

1. Across three major global rankings: Quacquarelli Symonds (QS) 2026, Times Higher Education (THE) 2025, Academic Ranking of World Universities (ARWU) 2024
2. QS World University Rankings 2026
3. 2024 audited Higher Education Research Data Collection (HERDC) and 2025 Research Block Grant
4. 2023 SCOPR submission
5. Published in 2024, SciVal (Elsevier, accessed 5 March 2025)
6. *Enterprising Melbourne Review 2023*
7. University of Melbourne 2024
8. University of Melbourne 2024
9. Published in 2024, SciVal (Elsevier, Accessed 30 April 2025)

Foreword by the Deputy Vice-Chancellor (Research)

Research at the University of Melbourne is crucial to Australia's future prosperity. Our discoveries have global impact and our research advances knowledge, answering enduring questions about the universe around us and what it means to be human. It contributes to the enrichment of society, by shaping professional practices and policy decisions, enabling healthier lives and communities, and delivering environmental and economic benefits. The quality and prominence of our research plays a key role in advancing the University's mission to provide exceptional education.

Inspired by this transformative power of research, I am excited to share the University of Melbourne's research strategy, *Advancing Research 2030: Excellence for Impact*. It charts our path to deliver continued research excellence, collaboration and impact.

People are at the heart of our research – our academic and professional staff, our students and graduate researchers, and the many communities we serve. *Excellence for Impact* aspires to embolden our researchers to explore the most ambitious questions and strive for the most remarkable breakthroughs. We must always consider the questions of why and for whom our research is important, and what difference it can make beyond our University.

I acknowledge the diversity of Indigenous knowledges and recognise their importance in our research, communities and collaborations. Indigenous knowledges enrich our scholarly community and our research quality, bringing benefits to Indigenous and non-Indigenous Australians and communities globally. Accelerating the impact of Indigenous knowledges through research, and developing our Indigenous staff and graduate researcher capabilities, are important priorities in this strategy.

We cannot successfully address the complex global challenges we face alone. *Excellence for Impact* articulates our ambition to be a trusted collaborator. We want to bring our interdisciplinary research strengths to existing partners and new collaborators with imagination and rigour, to achieve shared goals for enduring impact.

Excellence for Impact aspires to create deeper and more meaningful engagement with our incredible global network. Working together across disciplines, sectors, communities and international boundaries enables us to harness diverse knowledge, experiences and perspectives to address the world's most pressing challenges.

The University's depth and breadth of research has long been a driving force in solving problems and fostering innovation, delivering exceptional value and benefit to society. The introduction of Impact Accelerators helps focus our collaborative efforts and communicate important breakthroughs and innovations to our global communities.

Excellence for Impact emphasises the trusted place research must hold in our society. In a world where knowledge is increasingly questioned, it commits us to a continued focus on providing open and accessible information about our research quality, ethics and integrity.

I thank the many colleagues and collaborators who have been actively engaged in the development of this strategy. Deep collaboration has been instrumental in its shaping to reflect the diverse perspectives and expertise within our community. I look forward to working together to achieve our vision of research excellence for impact.

Professor Mark Cassidy
Deputy Vice-Chancellor (Research)



1

Our vision: Research Excellence for Impact

The University of Melbourne’s enduring purpose is to benefit society through the transformative impact of education and research. Striving for excellence in all its forms is our ambition. Impact is the outcome that we and others will see now and in the future.

Excellence for Impact advances our role at the leading edge of discovery. It seeks to ensure that, as an organisation and research community, we are enterprising in our aspirations and purposeful in our approach. Our people will be empowered to determine research agendas, with an unambiguous focus on excellence and impact. They will be guided by the necessary regulatory, ethical, institutional and divisional strategies, policies and principles.

In support of the work of our people, the University’s enabling environments must be accessible, inclusive and sustainable. They must be structured and managed to maximise impact. As articulated through our Impact Framework (diagram on page 9), our view of research impact is broad. It covers the effects on the economy, culture, public policy, the environment and quality of life, as well as on scholarly knowledge.

We have an exceptional ability to convene across our campuses and precincts to bring people together with purpose. In many spheres, we are already a trusted partner. But we need to do better. We need to invest further in the right systems, networks and relationships. While we will maintain a global outlook, we are uniquely positioned to partner with our neighbours across Asia and the Pacific to navigate the complexities of an increasingly interconnected and challenging global environment.

For our graduate researchers, *Excellence for Impact* articulates our aspiration to provide a consistent, connected and distinctive experience for an increasingly diverse group. We aspire to expand their opportunities to experience other international universities,

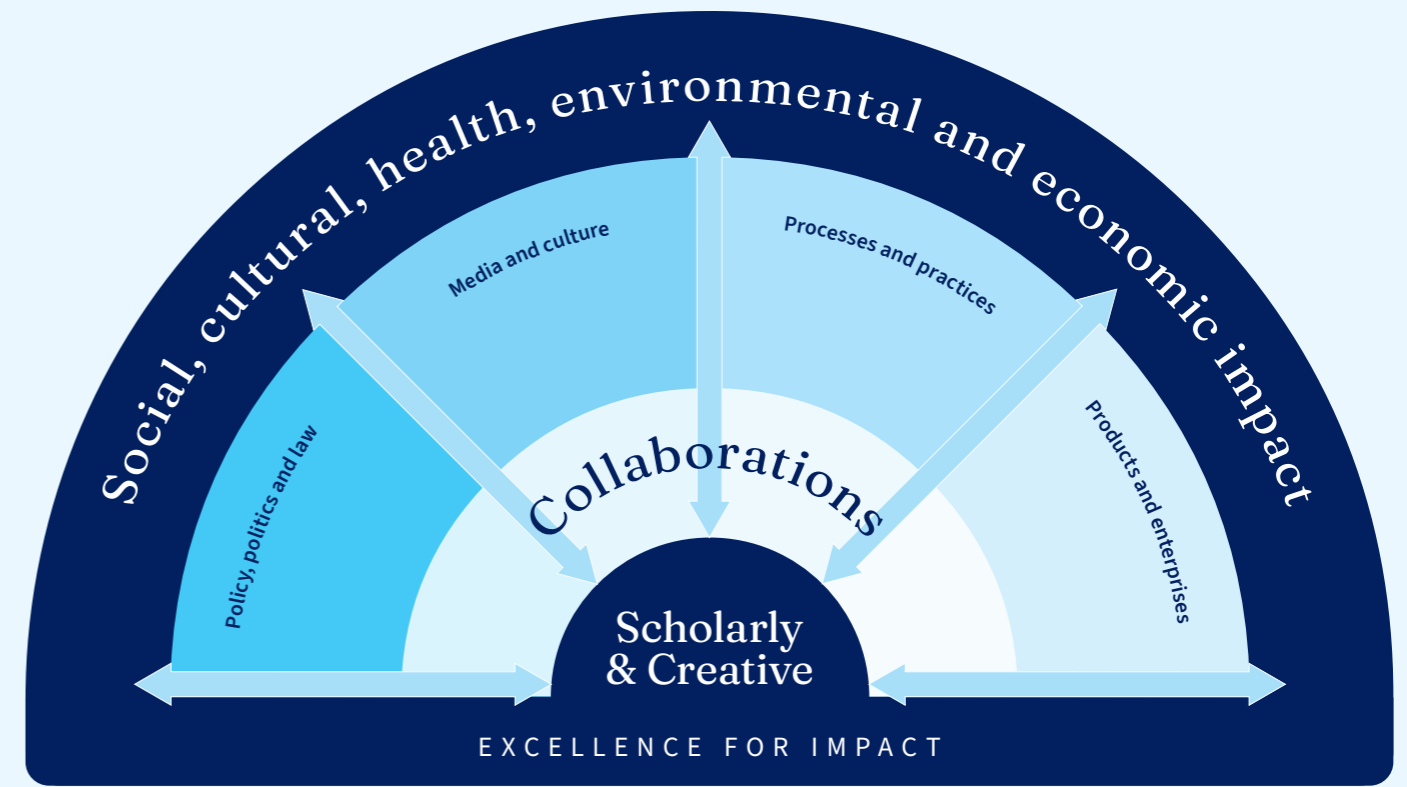
research institutes and industry pathways, effectively preparing them for a diverse range of global careers. Through *Graduate Research Melbourne*, we will elevate the experience of our graduate researcher cohorts. Our commitment to discovery also informs the University’s approach to education, with embedded research-based learning experiences for coursework students a priority.

This strategy outlines how we will achieve our vision. It charts a path for our researchers to be courageous in the questions they ask, in their approaches, theories and methodologies, and to take collective responsibility for making positive change. It speaks to our scholarly rigour, our integrity, and our commitment to openness, innovation and creativity in all our endeavours. It commits us to addressing inequity, removing barriers to participation and ensuring recruitment practices respect the University’s commitment to diversity and inclusion. Working with our faculties, we will attract and support the most talented academic and professional staff, safeguarding the future of our research activity.

We will improve the experience of our staff, students and those who work with us through targeted reviews of our research operations. By continuing to invest in our entrepreneurial ecosystem, we will stimulate progress towards becoming Australia’s leading entrepreneurial precinct. We will find new ways to tell our stories, and share our insights, innovations and outcomes with more people across the globe. These are just some of the ways this strategy will make a lasting difference.

Excellence for Impact complements *Advancing Melbourne 2030* and other supporting University strategies, so our research focus closely aligns with our broader institutional goals. It aims to ensure our communities – students, staff, alumni, partners and the societies we serve – continue to experience the benefit and transformative impact of research now and into the future.

University of Melbourne Impact Framework



Policy, politics and law

Research can influence and change public policy and laws by providing policymakers with evidence-based information and analysis

Media and culture

Research can shape public debate and drive transformative shifts in societal perceptions and culture

Processes and practices

Research can inform, advance, and improve processes and practices across various sectors and industries

Products and enterprises

Research can drive innovation and foster the creation of new products, technologies and enterprises

University of Melbourne Research Impact Framework – five facets: adapted from Williams, K and Lewis, JM (2021) ‘Understanding, measuring and encouraging public policy research impact’, *Australian Journal of Public Administration* 80 (3), 554-564.

2

Our context

Our ability to deliver on this vision is backed by our standing as Australia’s premier research institution. The University of Melbourne is the only Australian university consistently ranked in the top 50 across all three major global ranking systems. We steward the largest research investment of any university in Australia.

We have more than 9000 scholars covering an impressive breadth of disciplines, and a cohort of about 5000 PhD candidates who strive to create new knowledge for positive change. Our people – academics, professional staff and graduate researchers – work to share knowledge through research, education and engagement. Our precincts bring researchers together with students, alumni, community, industry and government, as well as other research institutions. We work together to raise questions, understand difference, work across boundaries and find solutions.

We live in a world facing escalating challenges including declining environmental stability, inequity of opportunity and global health imperatives. We are witnessing the expanding influence of artificial intelligence and new technologies, the re-contesting of histories, the erosion of democracy and long-held social freedoms, declining trust in institutions and geopolitical volatility. These challenges intersect with local, regional and national agendas to shape community, economic, policy and social responses.

As a research community and as an organisation, we must be equipped to respond to rapidly shifting priorities. Our ability to adapt to this volatile context, while maintaining our focus on emerging and long-term discovery-based research, requires us to be both resilient and agile in the way we work.

Australian universities are facing a challenging and fast-evolving policy landscape where funding is increasingly restricted and competitive. To continue to deliver outstanding and lasting benefits, and mitigate the challenges we face, we must consider an increasingly diverse suite of enablers. This includes growing philanthropy and industry partnerships, attracting relevant international funding and ensuring efficiency in how we share assets and work with others for mutual benefit.

At the heart of our vision is a commitment to making significant contributions to people’s lives and the world. We must play a leading role in informing and shaping public debate. We need to translate and communicate our research in compelling, relevant and accessible ways to diverse audiences. Our pursuit of excellence is accompanied by a commitment to integrity, quality and openness that underpins our aspiration to be a trusted voice in public discourse. By communicating our innovative research and education in ways that resonate, we continue to foster understanding of the value we bring to society.



The Old Quad on Parkville campus

Strategy on a page



Breakthrough in understanding the link between brain and heart health

Heart and brain health are tightly linked and age-related changes in our cardiovascular system can selectively influence brain networks and alter function in the brain.

This breakthrough, discovered by researchers from the University of Melbourne's Departments of Psychiatry and Biomedical Engineering, will help enable better health in our ageing population.

Led by Professor Andrew Zalesky and PhD researcher Yalda Amirmoezzi, with Associate Professor Vanessa Cropley and Dr Ye Ella Tian, the research was published in the *Journal of Neuroscience*.

The researchers suggest the findings may help explain why conditions like dementia and heart disease often happen together. And, importantly, may offer insight into how onset of these diseases might be delayed.

While many of the organs in our bodies age at different rates, this research suggests the biological ageing of our heart and brain is tightly linked, and this connected ageing affects specific brain networks and heart features.

The study analysed data of 3000 healthy adults aged between 46 and 80 years from the UK-based, large-scale, anonymous biomedical database Biobank.

The team then developed a model to calculate the biological age of a person's brain and heart using MRI scans and ultrasound images, as well as physiological recordings of their heart activity.

The results show that if a person's cardiovascular system appears older than their chronological age, it's more likely that their brain will also be older – and vice versa.

Our researchers also established that cardiovascular ageing is linked to age-related changes in three specific brain networks: the somatomotor network (which we use for co-ordinating sensation and movement), the default mode network (which we use for inward reflection), and the salience network (which processes pain, emotions, reward and motivation).

Beyond their roles in thinking, sensing and movement, these brain networks are also involved in regulating our autonomic nervous system and heart function.

This suggests the connection between brain and heart ageing isn't just a coincidence – these systems are biologically linked. It highlights the importance of cardiovascular health in preserving brain structure and function.

Understanding the link between brain and heart ageing could lead to more effective, integrated approaches for predicting, preventing and managing these conditions.

“While age is typically measured by the number of our years, the pace of ageing can differ across organs. The difference between an organ's biological age and its chronological age can give us valuable insights into its health.”

— Professor Andrew Zalesky, Departments of Psychiatry and Biomedical Engineering

Researchers at the Complex Human Data Hub hold models of the brain while investigating neuroanatomy and the role of the cerebellum.

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Our aspirations

To realise our vision, we must focus our efforts and unite our research community around common goals and ways of working. Our vision requires us to co-create a research culture and environment that demands excellence, engenders trust and strengthens our capacity to collaborate and deliver outcomes that advance knowledge and benefit society.

We will:

Foster a culture of belonging and boldness

Research culture is the foundation for how we will realise excellence for impact. Our people thrive when they feel supported, trusted and inspired to pursue bold ideas within a diverse and inclusive culture. This means:

- Our people feel empowered to pursue ambitious research endeavours
- Our people have a sense of belonging to the University community
- Our people are connected globally with research communities and alumni.

Advance the boundaries of knowledge

Investigator-driven research is the engine of discovery and remains a cornerstone of our institution. We will provide our researchers with the freedom to investigate problems of significance, whether their work is curiosity-driven or challenge-led. This means:

- Our people pursue research of the highest quality
- We recognise and reward research excellence and impact in all its forms
- We openly share our research, knowledge, data and methods to contribute to informed intellectual discourse and the significant debates of our time.

Ensure our research has enduring positive impact

We will proactively pursue research opportunities that help deliver social, cultural, environmental, health and economic benefits for our communities and stakeholders. This means:

- Our people are supported to engage in interdisciplinary and co-designed research with local, national and international collaborators
- Our people are empowered to turn their research into ideas, recommendations, creative outputs, products, services and technologies that deliver benefit to society
- Our people respect the essential role of Indigenous partnerships in undertaking research that generates genuine benefits to local communities.

Be a trusted collaborator and partner of choice

We will deepen relationships and further strengthen our convening power to meaningfully engage with research institutions, communities, government and industry. This means:

- We are recognised as Australia's trusted leader in innovation, entrepreneurial activity and commercialisation
- Our places of work, precincts and place-based partnerships stimulate greater research activity with mutual benefit
- There is widespread recognition, understanding and trust in the value and integrity of our research.

Our people

13.5K+

academic and professional staff¹

60%

of our staff are women²

300+

awarded competitive research fellowships³

45%

of our leaders are women⁴

270+

Indigenous staff⁵

200+

specialist staff supporting research platforms⁶

5600+

graduate researchers⁷

65

Indigenous graduate researchers⁸

5000+

users of our specialist research platforms⁹

1. 13,758 headcount (2024) or 11,061 FTE (full-time equivalent)

2. WK08 – Continuing and Fixed Term Staff Report, extracted 28 February 2025

3. WK08 – Continuing and Fixed Term Staff Report, extracted 28 February 2025

4. Includes Executive plus two top senior levels of academic staff (Professor and Associate Professor) and senior members of professional staff (Senior Managers and above). Data at 31 March 2024

5. University of Melbourne 2024

6. University of Melbourne 2024

7. InfoHub STU04 – Enrolments Dashboard (Year = 2024)

8. University of Melbourne 2024

9. University of Melbourne 2024

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Achieving our vision and aspirations: Empowered people

Our people are at the centre of *Excellence for Impact* – they make our vision possible and are the foundation of our achievements. Academics, professional staff and graduate researchers are catalysts for innovation, and their talent and dedication to excellence are driving forces that will shape the future. The University’s dedication to achieving lasting impact is fuelled by their ambition and expertise.

Academic and professional staff

Together with the University of Melbourne’s *People Strategy*, *Diversity and Inclusion Strategy*, and *Murmuk Djerring*, the University of Melbourne’s *Indigenous Strategy 2023–2027*, we will foster a research culture that enables our academic and professional staff to strive for and deliver excellence. We will reward and celebrate both individual and collective achievements across all areas of research and affirm academic freedom as foundational. We will ensure a safe, accessible and inclusive environment that supports our people to take risks and innovate within their disciplines and practices. With equal recognition and respect for the role they play in fulfilling our vision, we will empower our professional staff to grow and collaborate with researchers and others to advance their work.

We will:

Define and instil a shared research culture

A clear articulation and understanding of a shared culture will support our ambitious research and educational agendas. Our research community will exemplify this culture through their behaviours and achievements. Our ways of working will encourage cross-functional and interdisciplinary collaboration at local, national and international levels. This culture will be visible, celebrated and recognised by our partners and stakeholders.

- Articulate and shape a research culture informed by University-wide values that respects the curiosity, determination, collegiality and integrity of our people, and is demonstrated through actions, behaviours and practices
- Uphold our University’s purpose and mission through exemplary leadership, including holding ourselves to account when behaviours do not align with our commitment
- Celebrate and reward excellence in all its forms
- Enhance opportunities for research and education activities to inform one another, and ensure all academic staff contribute to both domains.

Attract and empower people of the highest quality

The University of Melbourne will be a university of choice for talented staff, recruiting the best and brightest for both academic and professional roles. Our people come from varied backgrounds and bring diverse global perspectives to our research.

- Identify, recruit and induct top-tier and high-potential researchers, actively supporting their plans for development and progression
- Ensure clearly articulated career pathways, with aligned retention and reward practices, across our research workforce encompassing academic and professional staff
- Expand programs to attract world-class visiting academics and industry leaders with the potential for long-term engagement, strengthening our global network and research reputation.

Bring out the best in our people

We will support our academic and professional staff to have the skills, resources and capacity to flourish across all career stages. Our leaders will ensure our organisation provides inclusive, productive and empowering research environments. We will be active in our advocacy for national investment in research commensurate with our nation's aspirations.

- Prioritise and invest in initiatives that empower and enable our Indigenous staff, and grow the capability of our broader research community in contributing to our Indigenous research agenda
- Improve ways of working across our research workforce, particularly between academic and professional roles, with a shared vision and mutual understanding of the work to be done
- Ensure targeted investment in capability development for staff, with a particular focus on the early and mid-stages of career development
- Identify and support current and future leaders so they have the necessary skills to respond to an ever-changing research context.



Amelia Le Plastrier, PhD candidate at the Melbourne Conservatorium of Music

CASE STUDY: Cutting-edge technology and infrastructure



Virtual production technology brings Hollywood to Southbank

World-leading research and teaching, both science and art, come together in the University of Melbourne. Advanced virtual production technology, equivalent to what is being used in Hollywood, is available to students and industry practitioners at our Southbank campus.

With the highest-resolution screen of its kind in Australia, the Light-Emitting-Diode (LED) Volume Studio is designed to upskill film and television students, and industry partners, offering real-world experience and helping them gain a competitive edge in the rapidly evolving global screen sector. Virtual production combines traditional digital cinematography with large-scale LED screens to create realistic visual effects.

Film and TV studios are increasingly taking advantage of virtual production worldwide, with the technology used in a growing list of blockbuster movies including Barbie and Dune.

The LED Volume Studio, coupled with a strategic industry partnership with NantStudios in Melbourne's Docklands, enables the Faculty of Fine Arts and Music to push further into digital research. Its significant infrastructure investment delivers genuine benefit to the creative industries, enabling researchers to explore and communicate new knowledge, push boundaries and embrace a broader understanding of our place in the world.

A series of hands-on micro-credentials (short courses) is being run in our custom-built Southbank studio, equipping students with the most in-demand skills and increasing their employability. These courses are funded through a multimillion-dollar Australian Government grant and are being taught in partnership with NantStudios.

The courses ensure filmmakers, animators, game developers and 3D modelers also learn the skills they need to transfer into this exciting field.

The digital screen production industry holds tremendous growth potential in Victoria. But it faces challenges including a shortage of expertise stemming from a gap in training.

The University's premium facility aims to fill this gap by fostering the development of a virtual production workforce to bolster Australia's screen industry.

This cutting-edge technology is integrated into teaching and research across the Faculty of Fine Arts and Music and will benefit future graduates of the Victorian College of the Arts. It is also used by our humanities, arts and social science (HASS) students and interdisciplinary researchers for digital visualisation.

“Global investment in virtual production is growing at an extraordinary rate. It is vital the next generation of Australian creatives embrace the potential this technology offers. Our significant investment in virtual production technology, coupled with our partner NantStudios' expertise, offers our students the ability to not only join the industry but to lead its development.”

— Andrew O'Keefe, Senior Lecturer and Head of Virtual Production

World-leading virtual production technology is equipping Film and TV graduates to bolster Australia's screen industry.

Graduate researchers

The breadth and capability of our graduate researcher community is vital to the University of Melbourne's research and education mission. Graduate researchers contribute new and unique perspectives, bringing with them an entrepreneurial spirit and a desire to turn knowledge into influential ideas. The contributions they make extend well beyond our University, through their engagement with community, industry and government while they are studying and then in their future pathways. It is imperative that we support our graduate researchers to reach their full potential and prepare them for diverse careers ahead.

We will:

Attract and recruit the best graduate researchers

The University of Melbourne will be recognised globally for our exceptional graduate researchers, who come from a wide range of backgrounds and reflect the diversity of our global community. We will support our graduates to pursue their research interests and curiosities.

- Attract, recruit and retain the most talented graduate researchers from across the world aligned to the expertise and ambitions of our academic staff
- Expand entry pathways to enable outstanding individuals from varied backgrounds and lived experiences to pursue graduate research degrees, consistent with the University's strategic focus on widening participation in coursework degrees
- Actively promote the value of a graduate research degree at Melbourne.

Enhance experiences through Graduate Research Melbourne

Our distinctive approach will enable graduate researchers to achieve their potential. We will nurture our graduate research candidates through high-quality supervision and opportunities that enrich their research experience and capability. We will enhance the consistency of graduate researcher experiences, including induction and fostering communities and environments that support all graduate researchers to learn and succeed. This includes being attentive to the workplace needs of graduate researchers with accessibility and related requirements.

- Improve the quality and consistency of research supervision, through shared expectations and values that support every graduate research candidate to excel
- Facilitate collaboration between graduate researchers across faculties and precincts with initiatives that bring together disciplinary groupings, theme-based cohorts and international clusters
- Provide culturally safe, empowering and enabling environments for Indigenous graduate researchers
- Ensure graduate researchers are supported to participate fully in University life, including through tailored support mechanisms and opportunities
- Enable aligned and simplified administration, coordination and management processes.

Prepare graduate researchers for an expansive range of future careers

Melbourne graduate researchers will be recognised as respected leaders in the varied pathways they choose to pursue. We will ensure our graduate researchers participate in local, national and global programs that expand their horizons and support their preparation for the next stage of their careers.

- Support our graduate researchers to build the skills that enable them to lead and excel in their future endeavours
- Expand opportunities for graduate researchers to pursue the full range of pathways available, including connections with leading international universities, industries, startups and other research organisations
- Enhance professional development opportunities for graduate researchers, including discipline-specific learning and entrepreneurial programs, teaching opportunities (including within the University's flagship Graduate Researcher Academic Associate program), and engagement opportunities with community, industry, government and other research organisations
- Improve the mechanisms for maintaining lifelong connections between graduate research alumni and the University.

CASE STUDY: Graduate researchers

Graduate researchers and academics gain a connected global experience

International collaboration is fundamental to research at the University of Melbourne. We are committed to preparing our graduate researchers, the next generation of bold investigators, for global careers.

International Collaborative Research Academies (ICRAs), previously called International Research Training Groups (IRTGs), are a flagship tool for enabling both international research collaboration and providing global research training experiences for our graduate researchers.

ICRAs are formalised programs that provide supportive environments for candidates to excel in their research training. They provide a framework for existing researcher-to-researcher links to be readily scaled and networked, while also providing unique global experiences for our graduate researchers.

Each candidate in an ICRA spends at least a year overseas embedded in a partner institution as well as being part of a Melbourne research group. During this time, candidates access complementary facilities, expertise and environments, and obtain a global perspective, together with their peers. At the end of their research training their thesis is examined by two universities. Successful candidates receive a single PhD degree that is jointly awarded with two testamurs, one from each university.

Through our ICRAs we partner with international universities and institutes with aligned values, complementary research strengths, and commitment to high-quality research and research training. This allows our graduate researchers to benefit from complementary expertise and pursue high-quality joint research projects across the globe.

Graduate research life can be isolating, with candidates reporting they sometimes lack opportunities for connection. Being part of an ICRA cohort is one way we help address this and foster a strong sense of belonging for our graduate researchers.

There are more than 300 joint PhD candidates in the current 18 ICRAs, with half of these enrolled through partners at the University of Manchester (UK), KU Leuven (Belgium) and the University of Bonn (Germany). The other half are spread across 20 partner institutions in nine countries including Canada, China, India and Japan.

ICRAs facilitate long-term collaboration and partnership. They enable joint international projects and increase the quality, output and impact of our research. Together with our international partners, we discover new knowledge that benefits society at a global level that we could not achieve on our own.

“I was able to undertake research not only in my chosen field of materials science but also in biochemistry and microscopy. I tested the nanoparticles that I developed in Melbourne on cancer cells in Leuven, producing impactful results. Through the program, I have become a more well-rounded and resilient researcher, and I now have a second home on the other side of the world.”

— Samantha Zaman, Melbourne-KU Leuven joint PhD candidate

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Achieving our vision and aspirations: Enabling environments

To empower our people to excel, we must create the right conditions, connections and environments. Our outstanding physical and digital infrastructure includes laboratories, scientific instruments, scholarly collections and resources, and computing systems, networks and data repositories. Alongside our rich and diverse partnerships, this infrastructure supports research to thrive across all disciplines.

Our world-class campuses and precincts, including our distributed geographic locations and our teams embedded within other organisations, provide essential architecture for our ambitions. Our work places are curated by expert professional and academic staff, and equip our researchers, including graduate researchers, partners and collaborators with the tools and expertise they need to advance knowledge and innovation. Our thriving partnerships, across Australia and the globe, alongside our entrepreneurial ecosystems, complement this by providing individuals and teams with opportunities to achieve impact at scale.

Underpinning these efforts, we must have the right models for effective and efficient operations, appropriate supports and incentives for interdisciplinary and team-based ways of working, and a sustainable funding approach. The right settings will enable us to work with certainty and purpose to achieve our ambitions. Through clear governance and leadership, we will ensure greater accountability and more effective decision making across our research landscape. This will enable us to balance challenges with opportunities and work with openness, transparency and integrity in all that we do.

We will:

Lead with integrity and openness

The University of Melbourne will be held in high public trust, guided by exemplary standards of ethics and integrity. Our strong and influential voice will promote critical and free enquiry, supporting informed public discourse and debate, consistent with our commitment to advancing knowledge. We will continue to build on our commitment to research integrity and ethical conduct through open practices, and by enhancing the systems, services and frameworks we have in place to uphold the highest ethical standards in our research.

- Communicate openly about our research practices, including our integrity standards and rigorous processes, to strengthen community trust
- Increase the visibility and public understanding of our research impact, including through comprehensive recording of outcomes, adopting open scholarship where possible, targeted communications and ensuring consistent reporting on our impact measures
- Enhance our institutional capability for meaningful engagement with policy makers, influencers and the policy-making process
- Create stronger engagement with all levels of government and industry to deliver and demonstrate the impact and value of our research
- Advocate for appropriate policy settings and the right forms of support across the research sector.

Equip our research community with cutting-edge technology, infrastructure and expertise

The quality of our precincts and our research environments will attract talented staff, partners and collaborators from across disciplines and the world. We will invest strategically and sustainably in physical and digital infrastructure, balancing the maintenance and renewal of existing assets with investment in new capabilities.

- Continue to attract and develop the technical workforce whose expertise and innovation is an essential feature of our infrastructure, assets, materials and spaces
- Ensure our research community can leverage new and emerging technologies to remain at the cutting edge of research and innovation
- Activate existing and new precincts to grow internationally renowned locations for collaborative research, innovation and enterprise. Expand awareness of our expert workforce, equipment, facilities, and the local and global companies, entities and startups that convene across our precincts
- Invest strategically, keeping in mind future physical and digital infrastructure needs, to promote greater use, resource and asset sharing, co-location and efficiency opportunities
- Review our approach to lifecycle management and sustainability to better balance our investment in research assets.

CASE STUDY: Our precincts and partnerships



Transformative genomic research for cancer in the Melbourne Biomedical Precinct

Harnessing the power of our precincts for research, teaching, learning and collaboration is a strength of the University of Melbourne.

Located in the heart of Parkville, the Melbourne Biomedical Precinct is the third largest biomedical precinct in the world. It houses more than 40 biomedical organisations and delivers world-class research, healthcare and education. The precinct includes hospitals and specialist centres for cancer, women and children, as well as pharmaceutical developers and manufacturers.

Place-based research, learning and teaching has the advantage of concentrating knowledge and experience, bringing like-minded people together for mutual benefit.

Our precincts spread across the city in all directions from our Parkville campus. They include our entrepreneurial hub at Melbourne Connect, the Melbourne Arts Precinct, supporting fine arts, music, dance and theatrical collaboration, and an emerging advanced engineering and design precinct at Fishermans Bend.

The Melbourne Biomedical Precinct provides outstanding patient care, cutting-edge research and discoveries, and delivers economic value to Victoria.

Part of the precinct, the Collaborative Centre for Genomic Cancer Medicine is transforming the national standard of cancer care. It is a purpose-driven partnership between the University of Melbourne and the Peter MacCallum Cancer Centre.

The Centre's objective is to improve cancer care in Australia using genomic medicine to develop new treatments and prevention strategies, and to offer end-to-end precision cancer medicine from bench to bedside.

Genomic technology creates a detailed map of a person's DNA. This allows cancer specialists to predict a person's risk of developing cancer, perform an accurate diagnosis, and develop personalised prevention strategies. It is the first Australian example of an academic-enabled genomics centre in a cancer hospital.

The Centre sets a new standard for how we address the challenges of cancer, bridging the gap between lab and clinic and delivering enduring impact for generations to come.

“There is an urgent need for interdisciplinary collaboration, bridging the gap between lab and clinic, to translate cutting-edge research into real world impact. By combining Peter Mac and the University’s genomic and analytical expertise, the Centre is harnessing the potential of transformative technologies to lead the integration of genomic medicine into the standard of cancer care in Australia.”

— Professor Sean Grimmond, Director of the Collaborative Centre for Genomic Cancer Medicine

Professor Sean Grimmond leads a team of researchers working to develop new approaches to cancer in the heart of the Melbourne Biomedical Precinct.

Enhance the efficiency and sustainability of our research ecosystem

Our research environments will allow our people to focus their efforts on what matters most. Our support systems will be intuitive, accessible and highly effective. We will ensure our funding and governance arrangements facilitate open and accountable practices, easier collaboration and safe and efficient operations.

- Align end-to-end research services to be more user friendly and eliminate unnecessary processes, and work to streamline activities and provide clarity on roles and responsibilities across the research ecosystem
- Review research governance and internal arrangements to better support effective, efficient and transparent decision making
- Review and realign internal investment in research to support our ambitions and ensure our staff have access to appropriate advice and resources
- Increase and diversify external income streams, including philanthropic, industry and international sources.

Strengthen how we collaborate within and beyond the University

We will be a thriving hub of activity, where our partners and our communities convene and collaborate to find practical solutions to challenging problems. Our internal systems will make it easier for our research community to connect locally and globally and build on collective strengths to achieve shared aims.

- Intensify the scale, relevance and impact of partnerships and collaboration across our precincts, campuses and places of work to promote the cross pollination of ideas and inspire new approaches
- Ensure we have the right training and support mechanisms in place to enable meaningful engagement with stakeholders to achieve impact through collaboration
- Ensure our policies and processes support and enable the diversity of research agendas
- Enhance mechanisms and systems to make our research more discoverable and transferable, within the University and beyond
- Streamline our administrative and commercial arrangements, reinforcing our research capabilities and capacity for research project delivery, to position the University as a trusted and innovative global partner of choice for deep and lasting research collaborations
- Review relevant University governance and operations to remove barriers to working across our organisation. Enable more effective collaborations and resource sharing across units, departments, faculties and the University as a whole.

Build a thriving entrepreneurial innovation ecosystem

We will be recognised for our vibrant entrepreneurial, innovation and commercialisation activities. Our physical and virtual environments, where enterprising staff and students can develop and thrive, will be part of a globally connected innovation community. We will be a partner of choice for community organisations, industry research and venture capital investors.

- Grow and diversify the range of researchers, students, alumni and external partners actively involved in our innovation ecosystem
- Drive our impact through new social and commercial enterprises, intellectual property licencing and entrepreneurial initiatives
- Elevate the Melbourne Entrepreneurial Centre as a global powerhouse for entrepreneurial activity, integrating entrepreneurship into researcher development, and building on and scaling-up high-quality programs
- Achieve a step-change in industry research income and partnerships by expanding sector-facing and purpose-driven business development, both nationally and internationally
- Increase early-stage funding for innovation, including through grant schemes, proof of concept, commercialisation funds and venture capital.

CASE STUDY: Trusted collaborator and partner of choice

Cripps Foundation support enables cultural heritage conservation research

A \$15 million gift from Minsmere Pty Ltd, a subsidiary of the Cripps Foundation, will further elevate the Grimwade Centre for Cultural Materials Conservation to research institute status. This builds on an earlier gift of \$6.9 million to the University of Melbourne from the Foundation.

The Institute already has demonstrated expertise working to secure the cultural health of people around the world, particularly in Asia and the Pacific. Going forward, an important focus will be on strengthening its partnerships with Indigenous communities to keep knowledge alive.

The Institute's work preserving items of cultural significance has expanded to address the growing risk of cultural heritage loss from factors including climate change, civil unrest and mass migration. It will also grow the workforce of skilled conservation graduates and cultural heritage researchers.

The Cripps Foundation is a global philanthropic organisation with a mission to support society through substantial gifts to universities, colleges, schools, churches, hospitals, charitable organisations and museums. It has had an enduring partnership with the University, and especially with the Grimwade Centre, for over 25 years.

The 2013 gift brought a relatively new discipline into sharp focus, and provided fit-for-purpose teaching and research spaces, a visible public presence on campus and a named professorial chair in cultural materials conservation.

Building on this legacy, the Robert Cripps Institute for Cultural Conservation will exist as a new type of community and industry-aligned research institute in the humanities. It will address our fragmented understanding of what cultural materials – from rock art to easel paintings – are being lost, why it is important and to whom it matters.

The Institute's work will be underpinned by the understanding that cultural, archival and scientific heritage are intrinsically linked to community knowledge, wellbeing, empowerment, equity and cohesion – driving economic, social and educational benefits.

Working at a larger scale, the Institute will translate the Grimwade Centre's community engagement and teaching into globally impactful research.

The trusted partnership with the Cripps Foundation will enable the new Institute to lift its science and research specialities from the current six research groups to eight by 2030. It will increase graduate researchers from 21 to 45 over the same timeframe.

It will also allow more flexibility in programming, with introduction of new micro-certificates for practitioners, industry aligned shortcourses, and priority on-Country and Indigenous-led programs.

The Institute brings together the humanities and sciences for new research that supports individuals and communities to protect their cultural legacy and ensure it is available to them and to future generations. This is key to understanding, equity and empowerment.

“Access to cultural, historical and scientific heritage is at the heart of human capability. Cultural material that is well preserved, secure and authentic is important for community empowerment, freedom of speech, democracy and institutional integrity.”

— Professor Robyn Sloggett, Cripps Foundation Chair in Cultural Materials Conservation and Director of the Grimwade Centre for Cultural Materials Conservation

The Institute is a trusted partner in preservation of important cultural materials.

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Accelerating Impact at Melbourne

The breadth and depth of our research expertise, precincts and partnerships means we are uniquely positioned to continue making a real difference. We will work collaboratively to address the complex challenges we face and deliver lasting impact.

Drawing on existing areas of strength and capability, Impact Accelerators will provide a further vehicle for us to work across disciplines, faculties and beyond the University to deliver the evidence-based research and outcomes society needs and expects from us.

Impact Accelerators will:

- Bring people together to formulate long-term ambitions in domains where there is high potential for expanding our reach and impact
- Identify and engage key partners and communities in the co-design of strategies, programs and approaches to achieve shared ambitions, outcomes and targets
- Attract strategic investment to bolster resources for each initiative
- Complement, not replace, research agendas situated at faculty, group and individual researcher levels and provide scaffolding for coordination, collaboration and support
- Facilitate coordinated storytelling to build awareness and engagement, helping our stakeholders and communities to understand the value of our work.

Drawing on themes from existing and emerging faculty and Chancellery priorities, six initial Impact Accelerators have been identified:

Climate sustainability and ecosystem health

Developing solutions that address climate change mitigation, resilience and adaptation will be crucial to ensuring the survival of our planet and health of our ecosystems. The resilience of our cities, communities and infrastructure is critical to building our collective capacity to withstand, recover and thrive as the world's environments continue to transform. Our research innovations will help to address climate change and other related threats, mitigating the environmental, health-based, cultural, economic, social and political impacts of our changing world. We aspire to be a hub of research knowledge, collaboration and expertise across Asia and the Pacific as we respond to the breadth of environmental challenges we face.

Our research will help build resilience, support new energy transitions, improve biodiversity, help reverse habitat loss and contribute to effective policy. We will continue to work with our partners to extend our reach in addressing climate and environmental degradation throughout our region and across the globe.

Democracy, civil society and inclusion

Universities have a crucial role to play in bolstering democracy, upholding trust and supporting freedom of speech. We seek to understand, influence and improve democratic systems across the globe. We will explore the sources and consequences of threats across national and international contexts, and support societies to meaningfully engage in democratic processes. With our international partners, we will continue to develop frameworks and practices that promote democratic principles.

We will investigate approaches that engender a safe and just society, including understanding socio-cultural changes and increasing socio-economic inequalities, addressing misinformation and disinformation, promoting social cohesion, supporting gender equity and disability rights and advocacy, while also accounting for multiple and different perspectives. We will address modern social and cultural challenges to better understand the human condition and how we live as humans in our city, country and region.

CASE STUDY: Enduring positive impact



Community Fellowships support research for social impact

Community organisations do some of society's most important work. They tackle urgent issues like homelessness, family violence and social exclusion, and provide critical support for newly arrived migrants and refugees.

But they face significant challenges, including securing funding, policy hurdles, staffing difficulties and reliance on volunteers. This combination can leave community workers with limited mental bandwidth to see the bigger picture or deeply explore their practice.

To address this complex situation our Melbourne Social Equity Institute established its signature Community Fellows Program. This transformative program enables practitioners and thought leaders in small to medium-sized community organisations to investigate an issue of importance to their organisation, mentored by a University of Melbourne researcher.

With their mentors, the Community Fellows are supported to co-produce insights to benefit their organisation and the communities they serve.

Unique among Australian universities, the award-winning Community Fellows Program is a way for the University of Melbourne to provide access to its knowledge base for genuine and enduring public benefit, breaking down barriers between academic, practitioner and lived experience.

The program is based on the understanding that community organisations are often best placed to undertake the research most relevant to their institution and the communities they serve, using local knowledge to solve grassroots problems.

It enables knowledge exchange without community workers needing to engage in years-long formal research qualifications when their expertise is needed in the field.

Fellows can step outside the daily demands of their work for a year, and receive expert guidance on how they might document, evaluate, share and scale their work for greater positive impact.

In addition to academic mentoring, Fellows receive research training, funding for their organisations to compensate for time away from work, a small research budget, and opportunities to build their professional network across the community sector.

The range of organisations involved with the program so far is diverse, and includes: the Women's Circus, exploring and evaluating circus performance as a tool for social change and inclusion; advocacy organisation WestJustice, making consumer law clearer and fairer for new migrants living in Australia; the Human Rights Law Centre, investigating ways to prevent modern slavery in particular among refugees and asylum seekers; and Whittlesea Community Connections, learning how people with refugee and migrant backgrounds perceive volunteering.

“The Community Fellows Program has given me the space to work on projects that are really important to us and our organisations, because they will benefit the health of the community and society in general. Otherwise, these projects will stay unidentified or languish for lack of attention.”

— *Giorgia Hall-Cook, Birth for Humankind*

The 2025 Community Fellows represent a diverse range of community organisations.



Researcher at the Centre for Neural Engineering

Health futures

Our research will accelerate medical, social and cultural interventions to improve the health and wellbeing of our society. The challenges in harnessing new discoveries and technologies, combined with health inequities, are adding to a global health imperative that requires us to think beyond disciplinary boundaries. We must embrace interdisciplinary approaches that span medicine, health sciences, humanities, engineering, ecological and social sciences, technology and the arts. Through our partnerships, research institutes and centres of excellence, and by leveraging the strength of our world-leading Melbourne Biomedical Precinct, we will have a transformative impact on people's lives across Australia, Asia and the Pacific, and beyond.

We will explore social factors to help people from all backgrounds to live full and healthy lives. Our research will shed light on other aspects of human life including free will, ethics and what it means to be a member of society. Using our influence, we will help shape public health policy to achieve more equitable outcomes for more people in our society.

Indigenous knowledges and research

This Impact Accelerator will amplify our institutional commitment to Indigenous knowledges and research. It will support government initiatives around closing the gap and will integrate health, medicine, education, development, resource management, agriculture, law and the arts. Indigenous knowledge systems provide valuable insights and compelling approaches for addressing social, environmental and economic challenges. By bringing together existing leadership in Indigenous knowledge from across the University and broader community, we will create an impact plan to promote and elevate the recognition of Indigenous knowledges and contribute to improved outcomes for Indigenous Australians, delivering benefit for all Australians and communities globally.

This will support our commitments under *Murruk Djerring*, the University of Melbourne's Indigenous Strategy 2023–2027, and amplify the work of our specialist Indigenous units and research programs. It will enable us to further support the recruitment, capability development and retention of Indigenous researchers, and to share these practices across the research sector. It redoubles our commitment to playing a leading role in shaping global Indigenous research and networks. We will develop processes to recognise the value of Indigenous knowledge and work respectfully with our Indigenous partners and collaborators.

National security

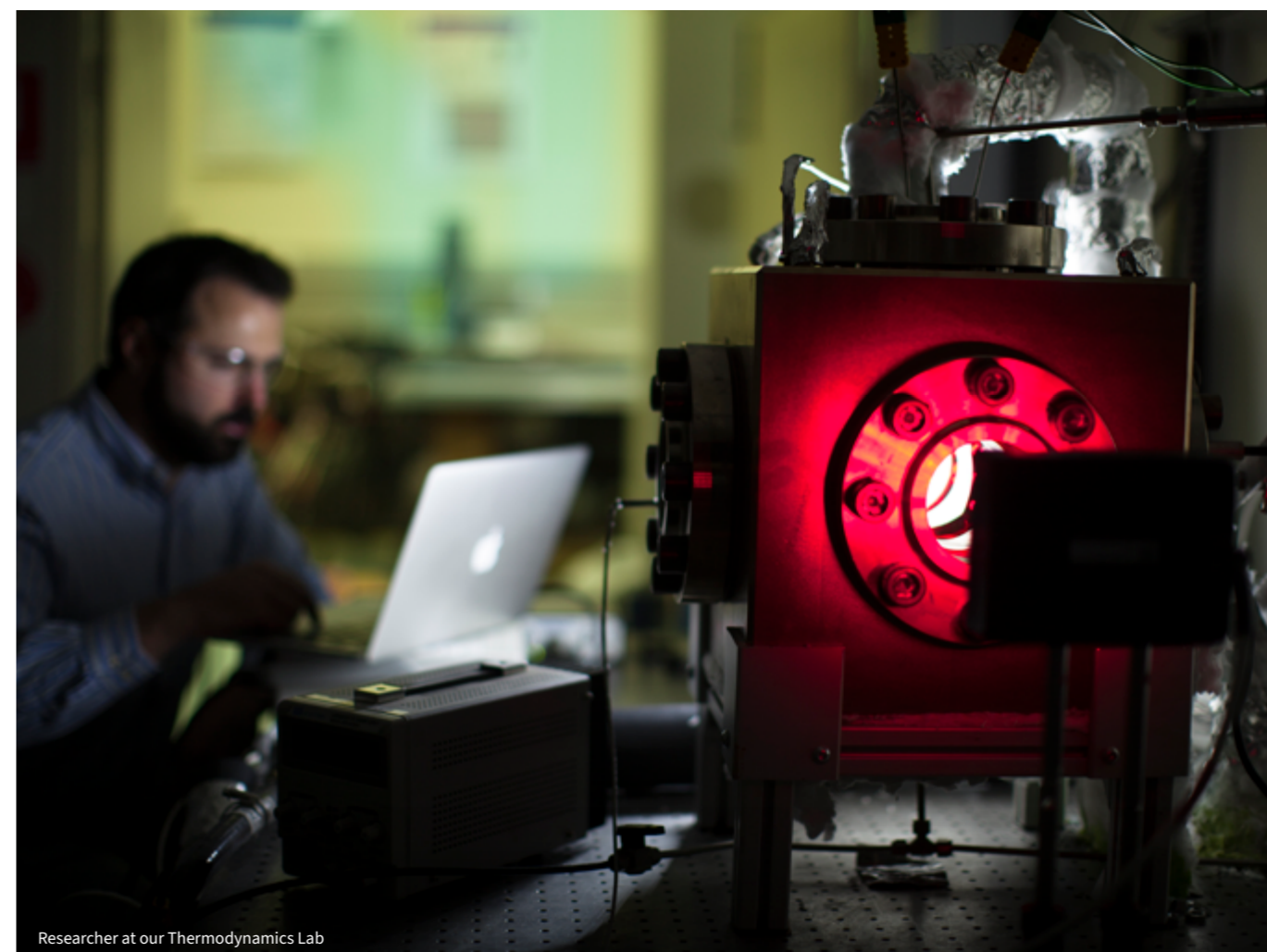
In an increasingly complex geopolitical environment, research plays a pivotal role in securing our nation's interests and safety. Universities serve a critical function in developing the policies, technologies and insights that can facilitate social and cultural diplomacy. We contribute to enhancing our national security and defence with integrity and ethics at the forefront.

Where we have the expertise, we will collaborate with the Australian Government's Defence, National Security and Emergency Services departments, our defence forces and first responders, and key community partners to build a critical sovereign capability. We will work across national and cyber security, defence and crisis management including natural disasters. Through interdisciplinary research, integrating engineering, computer science, law, international relations and social sciences, we will support Australia's security, resilience and readiness in the context of the changing global landscape.

Transformative technologies

Technology continues to shape our lives and societies. Understanding its challenges and benefits – including ethical, moral and sustainability concerns – is critically important. Artificial intelligence, robotics and quantum technologies have the potential to enhance efficiency and precision, and provide new ways of tackling long-standing problems. Gene editing and next-generation sequencing are transforming how we understand, diagnose and treat health conditions. Novel applications of big data allow us to explore our world with greater intricacy.

Being at the forefront of emerging technologies, including through interdisciplinary discovery, means we will be able to explore the use of these and other technologies for society's benefit. Technologies and technological innovation will be a priority for research and underpin our practices in bringing our research to those who need it most.



Researcher at our Thermodynamics Lab

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Success measures

We will begin to realise our strategic vision through priority initiatives detailed in our implementation plan *Excellence for Impact* Roadmap to 2030. Progress will be monitored through an evaluation framework that aligns with the *Advancing Melbourne* Performance Framework and is mapped across these key areas.

Area	Indicators
Research connection and belonging	<ul style="list-style-type: none"> • Staff satisfaction • Graduate researcher experience • Staff participation in research leadership and capability development activities
Research quality	<ul style="list-style-type: none"> • Benchmarked measures of quality research output • Success in competitive schemes and awards • Research integrity measures
Research income	<ul style="list-style-type: none"> • Higher Education Research Data Collection (HERDC) total • Proportion of sector HERDC • Diversity of research income sources
Effective research operations	<ul style="list-style-type: none"> • Research infrastructure utilisation • Shared service satisfaction • Measures of streamlined processes for research operation
Engaged collaborations and partnerships	<ul style="list-style-type: none"> • Quality of domestic and international partnerships • Convening power of precincts • Measures of reputation and trust
Research translation and impact	<ul style="list-style-type: none"> • Staff and graduate researcher participation in the entrepreneurial ecosystem • Research translation measures • Enhanced interdisciplinary research connections and co-designed initiatives with clear pathways to impact

An interdisciplinary research team, co-led by Dr Louise Shewan from the University of Melbourne, is collaborating with colleagues from Laos and other international scientists to unearth the secrets of the mysterious Plain of Jars in Laos.



Image credit: University of Melbourne / Plain of Jars Research Project



Professor Madeleine van Oppen's research at the University of Melbourne and the Australian Institute of Marine Science (AIMS) uses *in vitro* fertilisation to breed corals better able to cope with climate change.

Story from *Pursuit*, our research news and analysis website sharing insights from world-leading minds.

pursuit.unimelb.edu.au

Image credit: AIMS



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