Engineering Faculty Strategy

2030

Acknowledgement of Country

The Faculty of Engineering respectfully acknowledges the Bidjigal, Gayemagal, Gamilaraay, Yuwaalaraay and Wiradjuri peoples, on whose unceded lands we are privileged to learn, teach, research, collaborate and work.

We acknowledge the founding and ongoing connections of Aboriginal and Torres Strait Islander peoples who have continued responsibilities for culture, community and Country, and thank them for their support of our work in their lands, waters and sky.

We honour the Elders of these Nations, past and present, recognising them as knowledge holders for their lands.

Contents

Message from the Vice-Chancellor

It is my great pleasure to introduce the UNSW Faculty of Engineering Strategy for 2026-2030. As both Vice-Chancellor and a proud UNSW Engineering alumnus, this strategy holds particular significance for me. It reflects not only our collective ambition for the Faculty but also the enduring spirit of UNSW – a place where our education, research and global engagement come together to drive positive societal impact.

Engineering has always been about solving problems. UNSW's Faculty of Engineering tackles some of the world's most complex challenges, striving to deliver solutions with global reach.

UNSW consistently ranks among the world's top 20 universities, and our engineering faculty is Australia's largest and highest-ranked – achievements which reflect an unremitting focus on excellence. Yet, this strategy dares to go further, cementing UNSW Engineering among the top 10 engineering schools in the world. Achieving this requires ambition tempered with humility, ensuring we remain true to our values while scaling our impact. The ambition is not for ourselves but what incredible benefit a top 10 Engineering School can deliver for NSW, Australia and the globe as a whole.

The UNSW Faculty of Engineering Strategy for 2026-2030 outlines how this ambition will be achieved: by building a globally significant research culture recognised for excellence; by translating discovery into technologies, products and systems that improve and save lives; by offering immersive, cross-cultural educational experiences that connect our students with the world; and by driving societal transformation through collaboration across disciplines, sectors and borders.

The engineering strategy principles align closely with the strategic pillars of the university's overarching UNSW Strategy: Progress for All, creating a framework in which advancements in research, technology and education deliver tangible outcomes across all segments of society.

The strategy was shaped over nine months of consultation with the people who will bring it to life – our students, staff, alumni and partners. At its heart, this strategy, like the UNSW Strategy: Progress for All, recognises that people are central to creating meaningful change. Our collective vision is clear: through education, research and collaboration, we can drive transformative change that benefits society at every level.

Australia's future depends on building globally competitive, high-value, high-technology industries that serve our communities. As the nation's leading engineering faculty, UNSW Engineering is uniquely positioned to drive this transformation – partnering to shape policy, foste innovation and support industries that will secure Australia's prosperity in a rapidly changing world.

I look forward to seeing UNSW's Faculty of Engineering continuing to lead at the intersection of education, research and societal impact, and through this ambitious strategy, create lasting, meaningful benefits for communities in Australia and around the world.

Professor Attila Brungs

Vice-Chancellor and President

Message from the Dean

The Faculty of Engineering was established on the lands of the Bidjigal in 1949, more than 75 years ago. We are proud to be the founding faculty for UNSW, realising the government's original goal to train a high-quality workforce with skills in science and technology, shifting the economy from its pastoral base to a modern, industrial base, and responding to the growing demand for engineers and technology professionals in Australia.

The Faculty has a truly impressive history of innovation and impact: more than 90% of the world's deployed solar generation is based on UNSW Passivated Emitter and Rear Cell (PERC) and TOPCon silicon solar cell technologies. UNSW's novel nylon membrane led to affordable, low pressure wastewater treatment that has been used globally for decades and alleviates pressure from water scarcity. Recently, breakthroughs in secure embedded operating systems, silicon quantum computing with superior scalability, fire retardant paint and more are set to benefit millions.

Now ranked 25th in the world by the 2025 QS Subject Rankings, the Faculty's commitment to high-quality education, groundbreaking innovation and societal impact is stronger than ever. In recent years, the world-first Bachelor of Quantum Engineering and Bachelor of Geoenergy and Geostorage Engineering programs were launched, alongside Australian-first programs in Nuclear Engineering, Engineering Entrepreneurship and Vertically Integrated Projects, which have deepened experiential learning possibilities for students.

During 2024 alone, the Faculty attracted $128.7m in external funding, published 2324 Q1 journal publications, supervised 1104 higher degree research students and spun out 13 new deep tech companies. We introduced a raft of new societal impact initiatives, catalysing ambitious projects that empower communities to address major challenges, such as Project Halo, which uses floating mangrove pontoons for tidal restoration of blue carbon ecosystems.

Driving all of these innovations are the staff of UNSW Engineering, an extraordinary team who have collectively built an exemplary culture of collegiality, respect, authenticity and pursuit of excellence. It is this team that has provided the majority of the 1500+ inputs received during the comprehensive strategy development process. I want to thank the entire team, my colleagues, for their ongoing commitment to a wonderful Faculty culture, for their passion in contributing to this strategy, and for their optimism about what we as a Faculty can achieve through the strategy in the coming years. Special thanks are due to the Faculty Strategy leadership team, to the many colleagues across UNSW, students, partners, collaborators and other external contributors.

We are at a critical juncture where the world needs engineers more than ever to deliver a secure and equitable future. I very much look forward to delivering on this strategy together with the Faculty team, and in the context of our UNSW Strategy 'Progress For All'.

Professor Julien Epps

Dean, Faculty of Engineering

Engineering Leadership Team

From foundation to future

“I could never have believed at that time that these people would become some of the best friends, and most respected colleagues, I would ever have, it’s like having a second family who all support each other. Coming back to the university.... is also about looking forward to the future. I’ve heard about UNSW’s Progress for All strategy, and that’s also what I’m interested in – knowing what people here are doing in relation to helping society and also helping develop current students who will be the ones trying to solve the big challenges and issues ahead in the next 70 years.” Gordon Sharpe, member of the 1955 Electrical Engineering graduating class, celebrating their 70-year reunion.

–

Wobbly Walkers

Ever since we were a sand hill on Bidjigal land we have been reinventing and reimagining ourselves, leading the way at each step. Together we have shaped the next version of ourselves, for decades.

UNSW Engineering traces its origins to the founding of the University in 1949. From four departments—Electrical, Mechanical, Civil and Mining Engineering—we have grown into Australia’s largest engineering faculty, distinguished by the breadth of its specialisations. For more than 75 years we have been a national nucleus for innovation and a driving force in industry partnerships, producing 15% and 40% of all graduate engineers in the nation and in New South Wales respectively. Our purpose has remained constant: to serve society through education, research and innovation that changes lives.

Now, we reimagine ourselves as a top 10 engineering faculty taking our education far from our Kensington beginnings; supplying large numbers of the very best graduates from all walks of society with cutting edge skills honed through experiential learning; innovating fearlessly to create new companies and industries and empower communities, jointly reimagining them in the process; waving the engineering and innovation flag high where the whole country can be inspired by it; and building a critical mass culture where breakthrough discovery, inspirational education, entrepreneurship and impact each thrive from the successes of the others.

We were created to serve society, and our strategy has never been just for ourselves. We will deliver our strategy with our industry, community and government partners, and we will deliver it for the benefit of our broader society.

Education for tomorrow, today

Experiential learning is central to the UNSW Engineering approach. Programs such as the **ChallENG initiative** and **Vertically Integrated Projects (VIPs)** connect students with industry, government and community partners to develop solutions with tangible impact. Through the **Makerspaces** network, students design, prototype and test innovations in collaborative environments that mirror professional practice. Work Integrated Learning and industry-linked honours projects deepen these experiences, ensuring that graduates have both the technical expertise and the collaborative, creative mindset required to thrive in complex global contexts. The result is a powerful ecosystem where learning, innovation and application converge; embedding employability, entrepreneurship and social responsibility into every student’s journey.

The Faculty’s educators and initiatives set a new benchmark for educational excellence. Students benefit from direct access to passionate, world-leading educators. Our educators bring evidence-based pedagogy, creativity and mentorship into every classroom ensuring a rich experience where students learn from leaders dedicated to their growth. Through small-group design sessions, accessible faculty experts and vibrant learning communities, students gain more than technical knowledge they develop confidence, independence and the capacity to lead ethically and imaginatively in a changing world.

#1
Engineering and Technology Faculty in Australia

20,500+
students

More specialisations
than any other Engineering Faculty in Australia

Over 118
different nationalities represented across the faculty

UNSW’s ChallENG program
connects students, academics, and industry to real-world project-based learning initiatives.

8
Schools

4
Engineering MakerSpaces providing barrier-free access to tools and technology

$700m
recently invested in purpose-built facilities

Innovations that power generations

Solar energy

We have transformed the global solar industry through world-leading photovoltaic research used in 90% of the world's solar panels. Led by Scientia Professor Martin Green AM, our teams have repeatedly set world records for solar cell efficiency, making solar energy more affordable and accessible. Our breakthroughs power the UNSW campus and millions of homes worldwide, helping to drive the global transition to clean energy.

Sunswift

Over nearly three decades and seven generations of cars, our student-led Sunswift team has set multiple world records, including the Guinness World Record for the fastest electric vehicle over 1,000 km on a single charge. Combining hands-on learning with engineering excellence, Sunswift demonstrates our commitment to sustainable innovation and real-world impact—advancing electric vehicle design, energy efficiency and the future of zero-emission transport.

Membrane technology

Our breakthroughs in membrane technology have given millions access to clean, safe water in regions affected by drought and pollution. By developing advanced filtration materials that remove contaminants and bacteria, we've helped deliver large-scale water purification projects. These systems recycle wastewater, purify desalinated seawater and improve public health—offering affordable, sustainable solutions for communities around the world.

Project Halo

Project Halo brings together UNSW Sydney, the University of the South Pacific, and a key philanthropic industry partner to restore mangrove ecosystems in Fiji through an innovative approach featuring floating mangrove pontoons and natural tidal flow restoration. This multi-year collaboration works closely with local Fijian communities to rebuild coastal habitats, protect against storm surges, and strengthen climate resilience. By combining cutting-edge science and community collaboration, we are creating a scalable model for sustainable restoration across the Pacific.

Makerspaces and Makerbus

Our makerspaces provide open access to advanced tools such as 3D printers, laser cutters and electronics labs, giving students hands-on experience in design, creativity and problem-solving. The Makerbus takes this experience beyond campus—bringing innovation directly to schools and communities, including regional and remote areas. Together, they empower people of all backgrounds to create, collaborate and build practical solutions that make a difference.

UNSW Engineering, uniquely ourselves

UNSW Engineering has a proud history of creating technologies that have reshaped the world. From the PERC silicon photovoltaic cell, now the global standard in solar energy, to polymer membranes for reverse osmosis water filtration, our Faculty has helped deliver clean energy and clean water to millions. These are not isolated successes but part of a culture that consistently produces breakthroughs with global benefit.

So, what makes UNSW Engineering distinctive? Why do transformative technologies so often emerge here? The answer lies in a unique combination of factors that together create an ecosystem where discovery, innovation, and impact thrive.

Insight ahead of its time

Time and again, UNSW researchers have identified technologies with the potential to solve global problems years before others recognised their importance. Our academics pursue long-term programs of discovery and refinement, often over decades, building expertise that becomes genuinely world-leading. This is possible because we encourage freedom and space for curiosity and allow individuals to forge their own path for impact. Diversity of thought and discipline is not just welcomed, it is essential.

Sustained investment and enterprise

Vision alone is not enough. Transformational research and education require resources, and we've developed an enterprising culture securing diverse ongoing funding from domestic and international partners and grants. This ability to sustain long-term programs ensures that promising ideas are supported until their full potential is realised.

Driven by outcomes

Discovery is vital, but discovery for its own sake is not enough. Our teaching and research are driven by the problems we can solve and the value we can deliver to society. We bring this ethos into our classrooms, where students learn from educators who connect theory with application and research with impact. Each year, we collaborate on hundreds of industry projects, and many of our academics dedicate themselves to applied research. This diversity across the innovation spectrum, from fundamental science to industry collaboration, creates a culture where impact is the ultimate measure of success.

Respect across the spectrum

We are proud to count among our ranks some of the world's best discovery scientists and some of the world's best translational researchers. Senior professors actively mentor their students and postdocs, encouraging them to explore both scientific and entrepreneurial pathways.

Our true distinction lies in the deep mutual respect that unites our teams. When lab-based scientists and entrepreneurial minds come together, they ignite innovation - recognising that their shared expertise can result in world-changing breakthroughs.

Integrity as a foundation

Trust is the bedrock of effective research and collaboration. UNSW Engineering has built a visible culture of ethics and integrity that underpins everything we do. This commitment fosters confidence among colleagues, partners, and investors, ensuring that our work is not only innovative but also reliable, responsible and impactful.

Many pathways to impact

There is no single route from lab to market, and we embrace that reality. Our successes span licensing agreements with multinationals, partnerships with local SMEs, and the creation of spinout enterprises. The key is choosing the right model for each technology, and our Faculty has repeatedly demonstrated the agility to do just that.

Switching gears at the right time

Transformational research is a long game, but when the moment comes to commercialise, speed is critical. Our teams have shown the ability to shift gears, moving from academic research to enterprise creation, when the time is right. Often, this involves PhD graduates and postdocs forming founding teams, supported by their professors.

The power of scale

Size matters. As the largest engineering faculty in Australia, and one of the largest globally, UNSW Engineering benefits from both breadth and depth of expertise. On almost any engineering challenge, we have multiple world-class experts, often working in interdisciplinary teams. This scale increases the likelihood that someone will "guess right" about the future, and it fosters a robust culture of excellence.

Educating for new industries

Our research does more than create technologies, it creates industries. When UNSW established the world's first School of Photovoltaics, we also created a new global workforce. Today, our alumni hold leadership roles in most of the world's major PV manufacturers. From solar to nuclear engineering, UNSW is creating the workforces of the future.

Infrastructure for discovery, learning and translation

World-class education and research require world-class facilities. We provide leading-edge spaces for fabrication, imaging and characterisation, alongside modern teaching and learning environments that immerse students in hands-on discovery. Just as importantly, we ensure access to translational infrastructure, pilot-scale facilities that bridge the gap between lab discovery and commercial application. This ability to scale up is often the decisive factor in turning ideas into impact.

A distinctive whole

Individually, many of these elements can be found elsewhere. But what makes UNSW Engineering distinctive is that we take all of them seriously, and we strive to excel in each one. It is the combination of foresight, scale, a culture of respect, entrepreneurial spirit, infrastructure and integrity that enables us to deliver technologies, solve problems and see new industries that truly change the world.

UNSW Engineering is not just a place where research and teaching happen. It is a place where research becomes impact, where ideas become industries, and where engineering serves humanity on a global scale.

Engineers have always been catalysts for progress. At UNSW engineering, we empower this legacy to continue - again and again.

One Faculty. Eight schools. Imagination in action

Our schools

Our eight schools deliver cutting edge education and research with the mission to nurture students to become future industry leaders, advance the frontier of knowledge in engineering and transform practice through partnerships with industry.

Biomedical Engineering

Bringing the latest advancements in engineering tools, technology and techniques in the field of medicine to enhance health and wellness for all.

Chemical Engineering

Creating scalable solutions for energy, food and water sustainability that benefit both people and the planet.

Computer Science Engineering

Driving thoughtful and purposeful technology solutions for society through cutting edge research and impactful partnerships in AI, Computer Systems, Data Science and Information Systems.

Civil and Environmental Engineering

Delivering cutting-edge, sustainability-focused engineering education and research alongside strong industry and government partnerships to produce solutions with real social, environmental and global impact.

Electrical and Telecommunications Engineering

Innovating in efficient and intelligent systems in how energy and information are generated, transmitted and utilised that underpins critical infrastructure to power global connectivity and the technologies of the future.

Mechanical and Manufacturing Engineering

Underpinning innovation across sectors — from advanced manufacturing to transport, robotics and sustainable energy to shape efficient, reliable and future-ready solutions.

Minerals and Energy Engineering

Advancing technologies and driving the agenda to minimise environmental impact in society's needs for critical minerals and energy resources to enhance quality of life sustainably.

Photovoltaic and Renewable Energy

Accelerating the transition of our energy systems toward a clean energy revolution across all sectors to make renewable power and systems a reality for all.

Our strategy. Your strategy.

At UNSW Engineering, we believe the future of our faculty should be shaped by those who bring it to life.

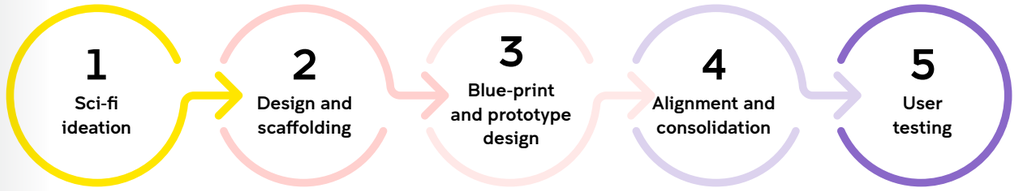
When we set out to create **the Engineering Faculty Strategy 2030,** we committed to a process grounded in genuine collaboration. From the outset, we engaged widely, listening to staff, students, partners, and other stakeholders to ensure the strategy reflects our shared values and aspirations.

Beginning in early 2025, exploratory town halls sparked open conversations and laid the foundation for a culture of co-creation. We stepped back from day-to-day operations to think broadly about the future, exploring the challenges and opportunities ahead in engineering education and research, and reflecting deeply on what we value and how we want to work together. These discussions reaffirmed our core principles of teamwork and collaborating.

Through workshops, surveys, and forums, these ideas evolved into draft goals and priorities, refined through several feedback loops with staff, students, committees, and our Advisory Council. By late 2025, we tested these goals through practical conversations about implementation, generating initiatives that confirmed our ambitions were both bold and achievable.

This year-long journey was deliberately paced to allow deep reflection and meaningful input. It not only shaped a strategy but strengthened the connections across our community, creating a shared sense of ownership and confidence in the future we are building together. It asked much of our people, but revealed their passion, creativity, and commitment to shaping the future of UNSW Engineering.

Engineering Faculty Strategy 2030 – five rounds of consultation and development



February
Societal impact and vision

April
Pillars/priority areas
Strategy outline

June
Draft strategy review

July
Strategy balanced with stakeholders

October
Project testing and validation

1,500+
Participants engaged

35+
Events held

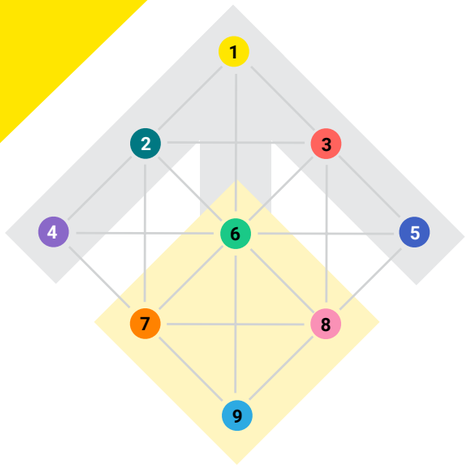
9 months
Of consultation

14
Channels of engagement

Fearless Thinking, Progress for All

In alignment with UNSW's Progress for All strategy, the Faculty of Engineering will harness the power of research, teaching, innovation — and the enduring wisdom of Indigenous knowledges — to shape a better future for Australia and the world.

We will inspire the next generation of engineers through transformative, hands-on education, push the boundaries of what's possible with our research, and work collaboratively to turn ideas into real-world impact, ensuring that engineering drives positive change, inclusion, and progress for all.



Impact Pathways

Through accessible education, empower current and future generations.

Through research, lead knowledge creation, innovation and translation.

Convene across sectors and build networks locally and globally.

Create a culture in which all people are united by purpose and can deliver their best work.

Develop inspiring and cutting-edge environments and simple, effective and trust-based systems.

Impact Focus Areas

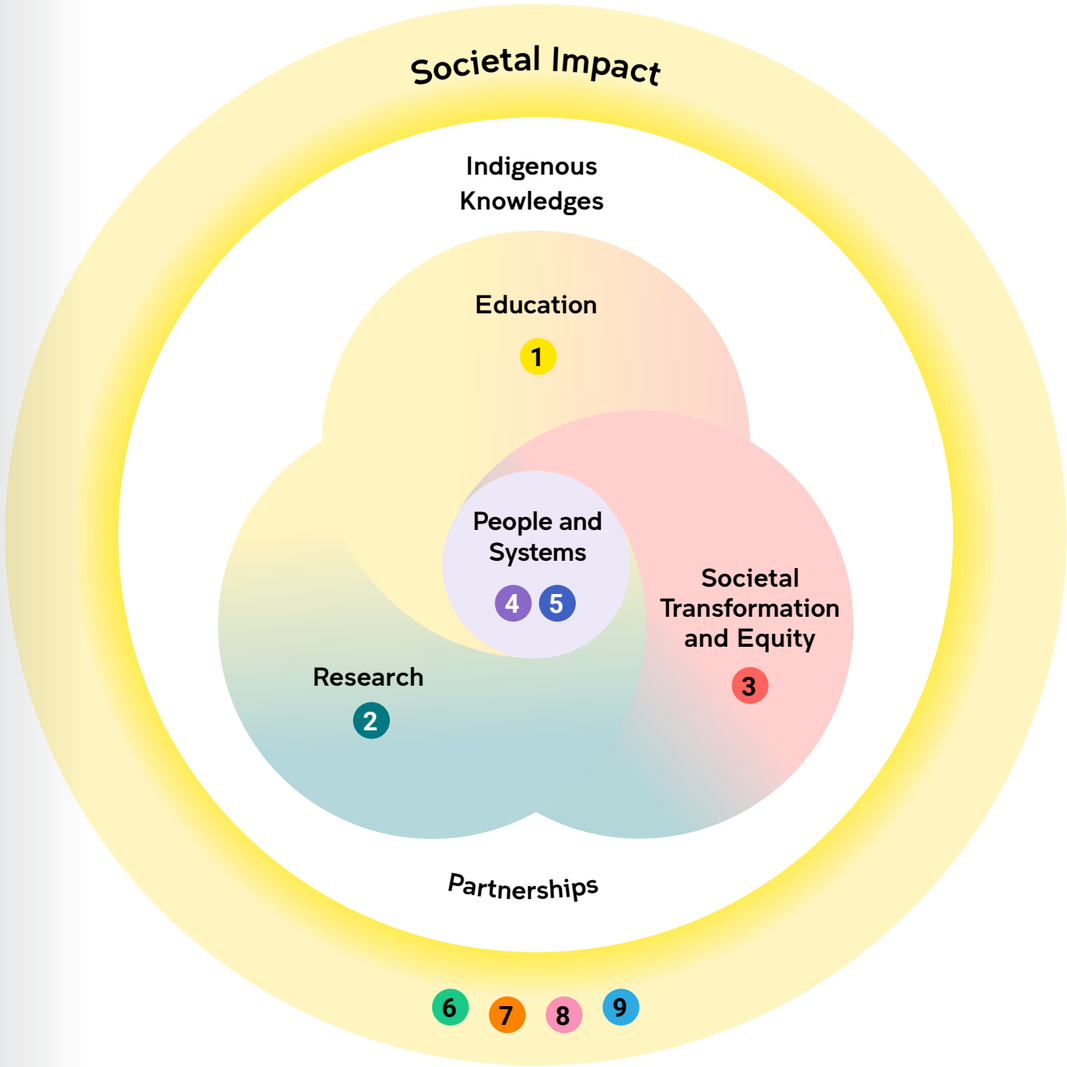
Accelerate the transition to a sustainable society and planet.

Advance economic and social prosperity.

Enable healthy lives.

Strengthen societal resilience, security and cohesion.

Through nurturing talent and fearless thinking, we engineer transformative solutions that accelerate progress for all.



Progress for All – UNSW values:

- Demonstrates excellence
- Drives innovation
- Builds collaboration
- Embraces diversity
- Displays respect

Engineering values in support of Progress for All:

- Bold
- Courageous
- Unconventional thinking for the future

Core Strategy

Aboriginal and Torres Strait Islander peoples

UNSW Engineering will be considered an employer, higher education provider and research partner of choice for Indigenous peoples.

People and Systems

In partnership with the Office of the DVC Indigenous and Nura Gili, and external organisations and communities, we will create an environment that is culturally empowering for Indigenous staff and students and provide clear pathways for Indigenous students to thrive academically, culturally, and professionally.

Education

We will respectfully embed cultural Indigenous knowledges and lived experience throughout our curriculum, ensuring they are accurately represented, appropriately credited, and fairly compensated.

Societal Transformation and Equity

We will respond to Indigenous community-led activities that address real-world challenges, maintaining and expanding long term relationships through listening, respect, and reciprocity.

Research

Opportunities to centre cultural responsiveness in engineering research and practice will be strengthened through community partnerships, engagement, and design processes that recognise and responsibly apply Indigenous knowledges and approaches.

UNSW Engineering commits to listening and working together to refine these goals, acknowledging that as we grow and engage with our Indigenous students, staff and partners, new directions will emerge.

Core Strategy

Education

Through our education, we will equip future innovators – staff, students and external partners – to imagine the impossible and make it reality.

Our ambition is to attract and nurture future talent, embed a lifelong learning and multi-campus mindset in our educational practice and further build our engineering education community that collectively delivers accessible education to empower current and future generations.

1. Attracting and nurturing engineering talent.

We are committed to developing high-potential engineering students from all backgrounds, nurturing them into visionary leaders, impactful innovators, and successful entrepreneurs, who drive meaningful change.

To achieve this goal, the Faculty is focussed on:

1.1. Attracting students with the greatest potential regardless of background and growing a student community that reflects the diversity in our society.

1.2. Building an inclusive and diverse educational environment where student safety, mental health, and wellbeing are central to their learning experience and future success.

1.3. Equipping students with the engineering knowledge, creative and critical thinking skills, practical experience and fearless aspiration to lead as graduates and build an engineering career centred on driving global impact.

1.4. Greatly expanding experiential learning, combining theory with real world practice in solving critical community problems that will have lasting and ongoing impact.

1.5. Engaging students in research, societal impact and translation from the earliest stages of their academic careers.

2. Embedding a lifelong learning and multi-campus mindset into our educational practice.

We embrace a future focussed perspective on engineering education, considering a more holistic, flexible lifelong learning approach to all initiatives in our offerings. Lifelong learning and transnational education will be a much greater focus of our activity. We will offer clear learning journeys that position students at the forefront of engineering skills and knowledge. We will be entrepreneurial in our approach to new education formats that break away from traditional program offerings. Our pedagogy will be based on adaptiveness and responsiveness to future education formats that deliver student and societal needs.

Our education offerings will:

2.1. Develop and deliver flexible, forward-thinking, and effective educational paradigms that actively engage students and respond to emerging modes of learning and educational needs.

2.2. Anticipate and shape the future of engineering education with unique, flexible, well-designed offerings that prepare graduates for evolving industry and societal needs and equip them to imagine and realise new industries.

2.3. Provide flexibility and opportunity for learners to adjust their learning experiences to their career, environment and stage.

2.4. Build a learning journey from childhood to retirement for an engineer; create an environment where all students and alumni feel a strong sense of loyalty and belonging to UNSW Engineering as their lifelong educator of choice.

2.5. Provide students with immersive, cross-cultural learning experiences, using international hubs to strengthen global alumni networks, attract top talent, and deliver lifelong learning at scale.

3. Cultivate a collaborative engineering education community that leads and shapes the future of learning.

We are committed to attracting the best educators and empowering them to be national and international leaders in imagining, innovating and delivering outstanding engineering education at scale.

We use our size, experience and education community to collectively apply a strategic lens, continually evolving our education practice and offerings to build our reputation as global top 10 leading engineering educators.

Our Faculty Education Community will:

3.1. Be a leading engineering faculty by attracting and fostering staff to be globally recognised leaders in engineering education.

3.2. Strengthen partnerships with industry, government and external stakeholders to bring contemporary knowledge, skills, and applications that ensure learning opportunities are relevant and at the cutting edge.

3.3. Develop UNSW Engineering as an internationally recognised leader in engineering educational scholarship and practice.

3.4. Build educator capacity and an integrated community for engineering education, thinking beyond traditional academic roles to empower all Faculty staff to enhance student learning and experience.

3.5. Herald our successes in engineering education to foster a culture of excellence in engineering education.

3.6. Deliver state-of-the-art engineering educational facilities that support effective experiential learning and realise our ambitious education strategy. Moreover, Faculty facilities and resources should be equally available for education, research and societal transformation and equity; and equally available to staff and students.

Core Strategy

Research

As one of the world's leading engineering faculties, UNSW Engineering has a long history of discovering and developing new technologies and bringing them into reality. These technologies have had a profound positive impact on society and helped create entire new industries.

We find brand new solutions to major world issues through patient, long-term, world's best research coupled with diverse thinking, close engagement with others and the agility to deliver, at pace, technological solutions that society and the market needs.

1. Be a recognised world leader in meaningful, impactful and important discovery research.

Keeping discovery science as the foundation, we seek out profoundly new ways of solving society's big issues. While the journey from insight to global transformation can be long, we stay grounded in purpose and maintain excellence through the highest quality publications, prestigious recognition, and world-leading demonstrated outcomes.

1.1 Become a global top 10 ranking engineering faculty.

1.2 Build and support a research culture where we collectively lead a globally significant research agenda, which drives discovery with profound, positive global effects that are recognised through the most prestigious awards such as the Nobel Prize, a Turing Award or similar.

1.3 Provide a world-class shared research environment and infrastructure, including advanced fabrication and analytical tools, computational resources, and AI methods and tools.

2. Accelerate the translation of innovation into global solutions.

Our world-leading approach to the translation of research into products, services, and systems recognises the complex and varied path from discovery to impact. We actively enable and support translation pathways, fostering a strong mindset and culture of innovation and entrepreneurship.

2.1 Create pioneering new, technology-based industries.

2.2 In collaboration with our translation partners, actively drive the maturity of our technology through to deployment, thereby improving society and improving lives globally.

2.3 Build and strengthen long-term, trusted partnerships to become the R&D partner of choice for industry; relationships that go beyond transactional projects and are anchored in mutual benefit.

2.4 Through embedding entrepreneurship into our culture, we empower, support and inspire our inventors and research teams to consider how their work will become the basis of a new venture, a new company, or even a new global industry.

2.5 Develop world-leading shared facilities supporting the translation of our research, including the co-location of our translation partners, at multiple scales: on-campus, within a UNSW Translational Research Facility as well as on partner sites.

3. Play a significant role in building Australia's innovation and productivity future.

Australia's future depends on its ability to build globally competitive, high-value, high-technology industries. As the nation's leading engineering faculty, we are uniquely positioned to shape the technology, talent, policy, and innovation ecosystem needed to realise this transformation.

3.1 Grow Australian public support for the development of new, high-technology high-value industries in Australia.

3.2 Influence Australian government policy to better support the development of new high-technology, high-value industries.

3.3 Increase Australian industry recognition of the value of formal R&D skills (i.e. PhDs and Masters) and the value of R&D investment.

3.4 Develop the Australian R&D workforce by (a) providing world-class PhD training that includes impact and translation skills, (b) ensuring our coursework students have exposure to a high-quality research experience, and (c) promoting mobility and connection between academic researchers and industry R&D teams.

Core Strategy

Societal Transformation and Equity

At UNSW Engineering, we aim to accelerate positive change for society by harnessing the power of diverse perspectives, cultural wisdom, transformative education and cutting-edge research, to build a more equitable and sustainable world.

We commit to opening doors for every aspiring engineer, enriching lives from local households to global communities, and championing responsible innovation that delivers tangible, collective benefits aligned with the UNSW Societal Impact Framework.

1. Be a recognised leader of equity and diversity in action in the engineering sector.

Building on UNSW's foundations of leadership in equity, diversity and inclusion[1], we will be considered thought leaders, in actioning progress in equity and diversity, creating a culture where all staff and students are valued and feel a sense of belonging, and showcasing the power of diverse approaches to innovate and achieve progress for all.

1.1 Achieve gender equity in UNSW Engineering by fostering a culture of respect and promoting balanced gender representation. We actively empower women in the broader engineering sector by increasing participation and visibility.

1.2 Be recognised as a university of choice for marginalised groups, providing equitable opportunities and cultivating a sense of belonging across all our staff and students.

1.3 Be proactively approached for direction as thought leaders driving equity and diversity in the engineering sector.

2. Establish engineering as a widely respected and accessible career path for everyone in Australia.

As Australia's largest and broadest engineering faculty, we are uniquely positioned to promote engineering as a compelling and attainable profession for people from all backgrounds. Through grassroots engagement and strategic partnerships, our work raises national awareness of the engineer's vital contribution to society and the economy.

2.1 Create a scalable program of public engagement that provides practical experiences of the ways in which engineers contribute to society.

2.2 With a focus on underrepresented cohorts, and in partnership with organisations and communities, develop and implement accessible, scalable programs and pathways to empower educators, engage families and communities, and inspire school students to study engineering.

2.3 Embed a culture of service learning[2] for both staff and students that enables interactions with local communities to raise awareness of the transformative role of engineering in society.

1 The first Australian university to appoint a Deputy Vice-Chancellor, Equity, Diversity and Inclusion; the first Australian university to publicly publish an annual report on the prevention of and response to gendered violence.

2 The combination of meaningful community service and academic learning to address real-world community needs.

3. Become a trusted societal impact partner of communities, NGOs, governments, and universities, co-creating solutions that leave lasting positive results locally and internationally.

We empower graduates and staff to build authentic, mutually beneficial, and sustainable partnerships. By brokering long-term, collaborative and nuanced connections across sectors and translating research into practice, we create lasting positive change to address our world's complex global challenges.

3.1 In collaboration with internal and external partners, equip staff and students with the skills to engage as culturally-aware soft diplomats[3] in community and global settings.

3.2 Strengthen the strategic relationships with our growing network of partners through our convening power and equitable knowledge exchange.

3.3 Expand and broaden our non-traditional funding portfolio by cultivating deep relationships and collaboration with philanthropic organisations, NGOs, the UN, and governments.

3 Advancing equitable, adaptive, socially responsive, and sustainable solutions and policies to complex global challenges through a whole-of-system approach that integrates technical rigour with a deep understanding of the diverse needs and values of communities.

4. Demonstrate and communicate how our societal impact creates positive change that is meaningful, equitable and widely recognised.

We strengthen our contribution to society by embedding evidence-based approaches to understanding impact and enriching how knowledge is shared. By active participation in global conversations, mutual sharing of knowledge and experience, and consistent reflective practice, we aim to extend the alignment of our work in ways that create value for our partners and reinforce shared goals.

4.1 Develop a robust impact framework to measure, evaluate and provide evidence of our societal impact.

4.2 Embed knowledge translation in our work, ensuring project outcomes are communicated in accessible, creative ways that facilitate information exchange with partners and diverse audiences.

4.3 Shape global recognition of our societal impact and evaluation strategies by contributing to public discourse, fostering learning exchanges, and engaging in global forums, thus supporting partner-led initiatives and amplifying collective outcomes.

Core Strategy

People and Systems

We're shaping a culture where collaboration, belonging, physical and psychosocial safety drives everything we do. Every role contributes to a high-performing, inclusive community that values voice, purpose and people. By embracing bold thinking, sharing knowledge, and harnessing cutting-edge tools, we're transforming how we work together.

1. Build a culture of collaboration, inclusion, safety and belonging.

We set the global benchmark for an inclusive, high-performing culture, one that fuels our ambition in education and research toward societal impact. Shaped by a desire to improve, our culture celebrates success, teamwork, creativity, safety, and respect.

1.1. Continuously build a connected and respectful engineering community where psychosocial safety, wellbeing, and inclusion are embedded across all environments. By building strong social support systems, empowering safe speak-up behaviours and embedding early-stage consultation and feedback loops, we will create a culture where everyone feels valued, heard, and supported.

1.2. Nurture a healthy and sustainable work environment offering flexible working arrangements that balance professional and personal commitments, all underpinned by a culture of trust and responsibility.

1.3. Foster a shared sense of purpose and belonging by ensuring that individual contributions matter to the team and matter to the Faculty's broader mission.

2. Empower every role to grow, progress and make a difference.

We develop diverse thinking and talent to drive our Faculty forward by fostering an innovation focused mindset that values experimentation. We believe success comes from the freedom to fail, learn and continuously improve.

2.1. Foster a culture of learning and upskilling that empowers our people to develop future-ready capabilities, embrace best practice tools and nurture a diverse, agile workforce.

2.2. Provide opportunities for collaboration and shared learning across the University while also connecting with peers from leading organisations to drive excellence.

2.3. Empower Engineering professional and technical staff to access clear career pathways including specialised, leadership, project-based, and cross-functional opportunities.

3. Elevate excellence with smart systems and our collective strength.

We are reimagining how we work by unlocking the power of AI, collaboration and staff-led innovation to deliver smarter, faster and more people-centred services across the Faculty.

3.1. Using a proactive, people-centred approach, we will embed AI and intelligent automation to enable data-informed decisions and create time to focus on higher-value strategic activities.

3.2. Harness our Faculty-wide capability by developing high-performing support teams that collaborate across school boundaries to build a sustainable culture of exceptional internal services and resource sharing, leveraging our scale, diversity and expertise.

3.3. Empower all staff to experiment with innovative business improvement ideas by providing time, resources and an environment that supports innovation and removes barriers.

Thank you

Our people, academic, professional and technical – their purpose and collective drive to keep striving for better are the reason our faculty consistently excels. When we take the time to listen, involve, and truly collaborate, strategy becomes more than just a document — it becomes a shared vision, built on real voices and lived experience. That's when real change happens. Our people's energy, ideas, and passion are what drives our faculty forward.

We would like to acknowledge all the following voices from our community for their generous time and support.

- UNSW Engineering academic, professional and technical staff and colleagues across the divisions
- Undergraduate, postgraduate and higher degree research students
- Deputy Vice Chancellor Indigenous Professor Leanne Holt, and her team, Nura Gili, Engineering Aboriginal and Torres Strait Islander students and staff
- Members of the UNSW Executive leadership
- Deans Advisory Council
- Engineers Australia
- International and domestic industry partners
- Our Centres and Institutes
- Societal Impact faculty and divisional teams
- UNSW precinct partners
- Our Alumni and donor community members

We extend our sincere gratitude to all who contributed as a team to the success of this document.

The quality of this work reflects the creativity and problem-solving of our dedicated design team. Special thanks to **Kancy Ho,** Creative Services Manager, and her team for transforming our vision into reality.

We also appreciate the invaluable support of **Vaiju Deb** and her team, whose expertise in communications and videography greatly enhanced this project.

Our thanks go to **Belinda Bullivant, Katherine Maunder, Julie Hatzi,** and **Dona Perera** for their assistance with organizing meetings and workshops.

Finally, we acknowledge **Ursula Stroh** and **Kate Stead** for facilitating this strategic process, ensuring the engagement of stakeholders, and encouraging bold, innovative thinking. Their guidance was instrumental in achieving this milestone.