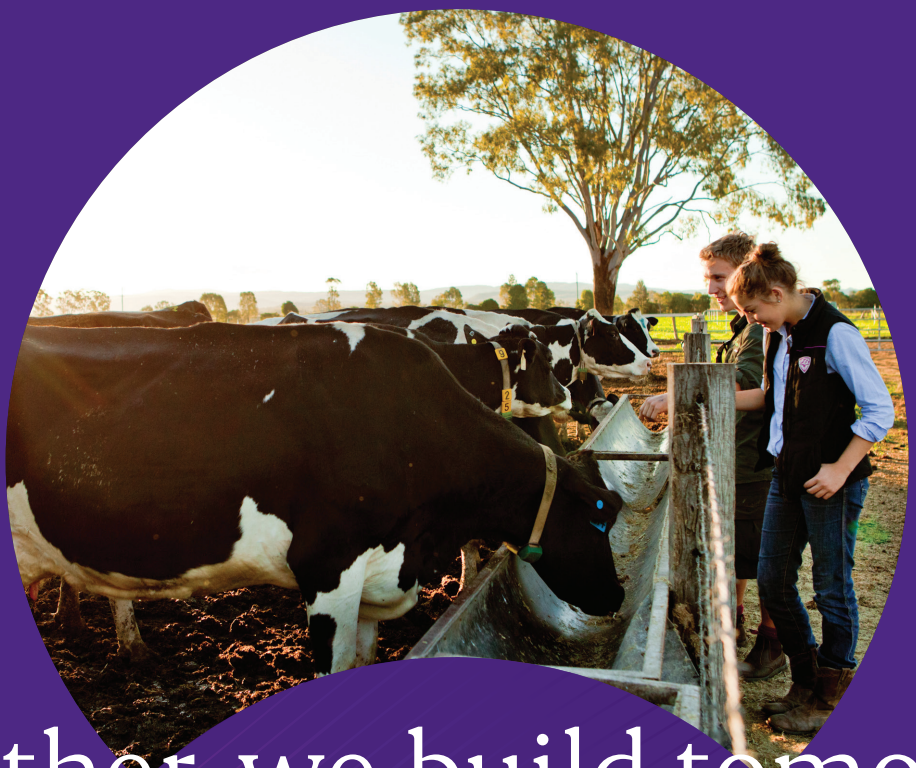
Productivity for
Queensland's Future

The University Of Queensland
AUSTRALIA

CREATE CHANGE



Together, we build tomorrow

Partners in productivity

Improving Queensland's productivity is key to driving economic growth, creating sustainable jobs and a prosperous future for all.

The University of Queensland (UQ) is your partner in productivity, educating the future workforce, researching new technologies, informing government policy and fostering partnerships that strengthen communities.

Our researchers contribute to national and state-wide agendas, identifying solutions to improve market dynamism, design effective public programs, and align skills development with emerging industries.

As one of Australia's most comprehensive universities, UQ brings deep expertise and collaborative spirit to help decision-makers unpack complex challenges and co-design productivity solutions that deliver impact.

UQ works with partners across sectors to advance research, train a future-ready workforce and improve communities.

Productivity capabilities

Artificial Intelligence for future gains

We recognise the long-term implications of AI and driving innovations in AI research and its application to enable productivity and growth. Through UQ's Artificial Intelligence Research Network, we offer:

- Responsible, ethical and trustworthy AI design
- AI for organisational innovation and business growth
- Efficient AI systems and infrastructure
- AI for scientific and environmental advancement
- Sovereign AI capability development

Housing, property and construction advances

With the national housing market surpassing $11 trillion and the construction sector contributing 9% to GDP, UQ research is driving productive property and construction outcomes. UQ's research enables:

- Evidence-based housing and urban policy
- Resilient and equitable city design
- Construction and materials innovation
- Property and real estate economics
- High efficiency and modular construction
- Data driven planning analytics

Future proofing food and agriculture

Feeding a growing population while protecting the planet is a global challenge. UQ's plant, animal and agricultural scientists work with industry to build sustainable systems for future generations. At UQ, we deliver:

- Sustainable crop and livestock production
- Digital agriculture and farm optimisation
- Food innovation and technology
- Precision farming and sensor technologies
- Supply chain innovation
- Soil and water management

More productive energy and resource industries

Meeting future energy needs, ensuring affordability, and meeting community expectations is complex. UQ research tackles the technical dynamics of energy systems and the challenge of supplying the world's future resources. We enable:

- Generation, storage and network technology
- Critical minerals and processing innovation
- Transition pathways and system integration
- Resilient and smart grids
- Sustainable biofuels and bioenergy
- Supply chain optimisation
- Policy, markets and value-chain governance

Health and Biomedical advancements for society

Rising healthcare costs and global health challenges demand innovative solutions. UQ's biomedical advancements are driving breakthroughs that improve health outcomes and create a more productive, cost-effective health system. UQ is leading research into:

- Therapeutics and drug discovery
- Medical devices and diagnostics
- Regenerative medicine and stem cell research
- Vaccines and immunotherapies
- Digital health and AI applications
- Genomics and bioinformatic innovations
- Cell and gene therapy development
- Clinical trials and healthcare translation

Building a skilled and more productive workforce

UQ is preparing a future-focused workforce by addressing skills gaps and enabling the adoption of new technologies through education and training. UQ delivers:

- Under and post graduate degrees
- Workforce training
- Executive leadership programs
- Training co-designed with industry
- Entrepreneurship training
- Digital skills and technology adoption

Productivity highlights

Productivity of the Australian Dairy Industry

UQ researchers have developed a method to help dairy farmers and policymakers identify what drives productivity changes. When factors like technology, efficiency, scale, climate or inputs shift, this new approach pinpoints strategies to solve problems through methods like adopting new tools or improving management. All of which boosts performance and profitability despite market volatility.

Autonomous rehabilitation transformation

Semi-autonomous bulldozer technology, developed by UQ with industry partners, is transforming mine rehabilitation, with trials showing productivity gains of up to 60%. By removing operators from hazardous environments, automation dramatically improves safety while also cutting fuel use and emissions and delivering a scalable and sustainable solution to Queensland's rehabilitation challenges and setting a benchmark for future mining operations.

Prefabricated housing construction solutions

UQ's modular construction research accelerates housing delivery by enabling off-site fabrication and rapid on-site assembly. This approach reduces delays, lowers costs, and ensures resilience against weather disruptions. Prefabricated designs also allow easy upgrades and disaster response, providing fast, adaptable housing solutions to address Australia's housing crisis and support communities in urgent need.

Creating a healthy Queensland

UQ's vaccine innovations, from the first cervical cancer vaccine to needle-free COVID-19 patches, are reducing preventable disease burdens and strengthening workforce health. Partnerships with global leaders are accelerating rapid vaccine development for emerging threats, easing pressure on healthcare systems and delivering scalable solutions that protect lives and support economic resilience.

Managing potholes with AI

UQ's RoadAtlas technology uses computer vision and AI to build better roads. RoadAtlas is an AI-powered platform for automated detection of road defects, including potholes to enable faster, more accurate asset management for transport authorities, support proactive maintenance, and contributes to safer, smarter road networks. This technology reduces repair costs and improves road safety.

"Productivity is one of the main drivers of long-term growth in living standards and therefore is a key economic variable targeted by policy makers."

Professor Alicia Rambaldi

Partner with us to shape tomorrow's productivity

Tomorrow's productivity solutions start with today's collaborations.

Whether it's pioneering new technologies, advancing research and development, analysing or informing policy, or equipping a future-ready workforce, UQ works side-by-side with government and industry to create positive and measurable impact for our society.

We've already built the team to achieve this.

Let's build tomorrow, together.

450+
industry and government partners in 60 countries

100%
of research at or above world standard

Top 50
global university

#1
Australian university for commercialisation outcomes

240+
active licence agreements

134
companies created

$68.5 billion
gross product sales

Partner with us

Shannon Willoughby
Executive Director,
Strategic Partnerships

M +61 411 255 480
E s.willoughby@uq.edu.au

Kenneth Sauer
Government Partnerships,
Strategic Partnerships

M +61 0400 117 425
E k.sauer@uq.edu.au

uq.edu.au