

Food, Agriculture & Wine Research Strategy



Our strategic alignment

The Adelaide University Strategic Ambition and Direction 2024–2034 informs the Adelaide University Research Strategy, which connects the five Signature Research Themes (SRTs) strategies individually and collectively.

Adelaide University Research Strategy

The Adelaide University Research Strategy is guided by the Adelaide University vision, ambitions, strategic drivers, and operating model. Our vision for research is to be Australia's premier for-purpose research university, delivering outstanding locally-embedded, globally relevant research that has impact.

Creative & Cultural

 Food, Agriculture & Wine

Defence & National Security

Sustainable Green Transition

Personal & Societal Health

Our research ambitions



Be recognised among the world's top 100 universities on an ongoing basis.



Be globally recognised as Australia's leading for-purpose research university.



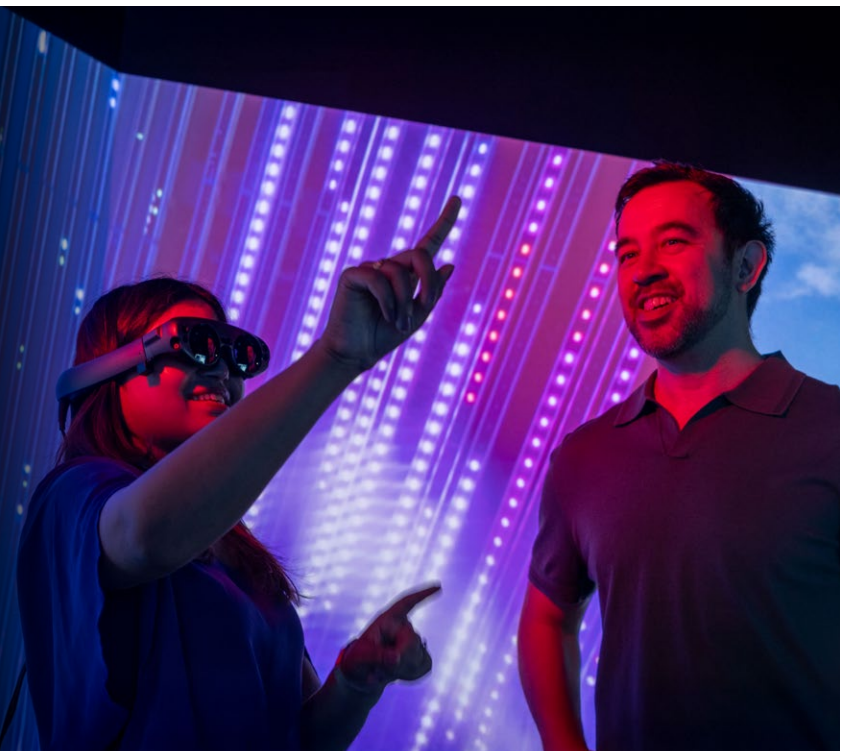
Rank first in Australia for industry income in research.



Be the destination of choice for the best global researchers, innovators, thinkers, and entrepreneurs in our priority areas.



Be Australia's most connected university, partnering with the communities we serve, and an engine for innovation, productivity and growth.





Food, Agriculture & Wine Research Strategy

The Food, Agriculture & Wine SRT will drive research of the highest global standard, anchored in excellence and focused on real-world applications. By concentrating investment, multidisciplinary talent and strategic alliances on key research pillars and priority sectors, the SRT will position Adelaide University for global recognition, catalyse leadership, define South Australia as an innovation hub, and deliver significant meaningful outcomes for society.

This approach is complemented by a genuine partnership with Aboriginal and Torres Strait Islander Peoples and knowledge systems, that is supported by a dedicated research strategy and embedded throughout the SRT strategy.

Our vision, purpose and goals

The Food, Agriculture & Wine SRT has a vision, a purpose and goals to generate research outcomes and drive impact.

Vision

Global leadership in research that builds adaptive food, agriculture and wine industries in challenging environments.

Purpose

Partnered research and collaborative change that drives the productivity, profitability and sustainability of Australia's food, agriculture, and wine industries to responsibly ensure the wellbeing of present and future generations, communities and environments.



Goals

- 1 South Australia advantage**
Leverage South Australia's food and wine advantage to drive innovation, tourism and growth across urban, regional and rural communities, while enhancing market access.
- 2 Sustainable industries**
Lead impactful research initiatives in food, agriculture and wine that address the challenges of water, carbon and soil, and align with United Nations Sustainable Development Goals.
- 3 Food safety and nutrition**
Enhance food safety, nutrition density and shelf-life of food and beverage products to improve health, reduce contamination risks and increase access to healthy options for individuals and communities.
- 4 Ethical production systems**
Develop and implement innovative practices that support animal production, wellbeing and health through ethical and sustainable technology adoption and ecosystem management.
- 5 Environmental and climate risk mitigation**
Develop climate resilient tools, practices and genetic resources that mitigate risk, address threats and are adaptable to challenging environments, while minimising resource use in production and distribution.
- 6 New technology for premium products**
Capitalise on advances in synthetic biology, remote sensing, AI and data analytics to meet global demand for high-quality food, fuel and fibre, and support the green and blue economies.

Our strengths and differentiators

The value proposition for the Food, Agriculture & Wine SRT is built on the existing unique strengths of Adelaide University.



Strategic regional location advantage

Substantial regional footprint connected with strong fundamental research capability, capitalising on South Australia's diverse environments, agricultural productivity, global food and wine reputation, and Adelaide's Great Wine Capitals Global Network membership.

Our strategic locations enable us to attract high-value alliances, undertake authentic research and build place-based value propositions unmatched across Australia.



Integrated value chain expertise

Comprehensive value chain capability, from discovery to production, processing, nutrition, marketing strategies, sustainability aligned with United Nations Sustainable Development Goals (SDGs), and community trust, enhanced by deep industry relationships.

Our holistic solutions for complex challenges attract partners seeking end-to-end innovation and broader impact through integrating multidisciplinary perspectives.



Agriculture research expertise

Home to the Southern Hemisphere's largest concentration of agricultural research and teaching expertise, the Waite Research Precinct, with leading insights, engaged partners, and proven commercialisation success.

Our research excellence and deep industry connectivity deliver cutting-edge innovation, boosting productivity, sustainability, and competitiveness across sectors.



Advanced assets and facilities

Various internationally acclaimed innovation platforms at our Central, Waite, Roseworthy and Mount Gambier campuses, food, nutrition and wine science laboratories, Roseworthy farm, multiple National Collaborative Research Infrastructure Strategy (NCRIS) facilities, the Forestry Centre of Excellence (CoE), and the ARC CoE in Plants for Space.

Our network of specialised campuses and centres allows us to attract key industry and Rural Research and Development Corporations (RDCs) alliances and deliver cross-value chain solutions.



Major ongoing alliances

Long-standing and significant alliances with strategic partners (e.g. Department of Primary Industries and Regions (PIRSA)), that drive impactful joint research, support key multidisciplinary collaborations and leverage diverse funding sources.

Our alliances align research with state priorities, enabling large-scale joint projects and accelerating research translation of critical solutions for SA that position Australia as an international leader.

Our pillars of research focus and priorities

Focusing on four research priorities positions the Food, Agriculture & Wine SRT to achieve its strategic goals.

Context

Our research priorities are clear and will be realised through directed investment and resource concentration.

Pillars of research focus

1

Plants and animals

Improves the productivity of all agricultural sectors in South Australia, by expanding our fundamental and applied knowledge of plant and animal biology and the interaction with challenging environments.

Priorities

Advance excellent discovery and applied research in **agriculture and biosecurity** by leveraging leading research capabilities across plant, animal, soil, water, and SynBio science, in addition to cutting-edge agtech to deliver integrated solutions that drive **productivity**, enhance **resilience** and **mitigate risk**.

2

Food and beverages

Invigorates the development, manufacturing and processing of food and beverages, with a strong focus on supporting the wine industry.

Solidify leadership in authentic food, wine and beverage research, drawing on our **wine** ecosystem, consumer trends, local **raw materials**, and **high-potential food areas**, such as healthy eating, plant-based proteins and bush foods, while driving local value-add impact to attract market premiums.



3

Business and markets

Drives sustainability, innovation, growth and profitability in food, agriculture and wine enterprises through enhancements along the value chain.

Extend global leadership in **market-driven business solutions** across Australian food, agriculture and wine value chains, leveraging unparalleled global leadership in business management, **marketing and consumer behaviour** to demonstrably enhance agri-food-wine enterprise performance and growth in tourism.

4

Sustainability and communities

Builds knowledge, tools and systems in the food, agriculture and wine sectors to enhance positive impacts with and for Traditional Owners, consumers, communities, and the environment.

Be the partner of choice for holistic **sustainability solutions** for food, agriculture and wine in Australia and adaptation in global contexts, informing regulatory and stewardship commitments, **environmental management of resources such as water, soil and land use, and social responsibility for food equity**.

Our initiatives and strategic enablers

Pursuing five initiatives, supported by strategic enablers, generates value for the Food, Agriculture & Wine SRT.

Strategic initiatives

These concepts will help us to deliver on our priorities:

ReAL Innovation

Research-engaged Action Laboratories for Innovation, a new model of engaged impact

ReAL - Agriculture

A hub-and-spoke construct anchored by our Waite and Roseworthy campuses, and the Mortlock and Davies Trusts, that connects across all Adelaide University locations and ReAL Innovations, to drive partnered research in strategic pillars of agriculture, with priorities aimed at adding value to primary produce. ReAL Agriculture incubates bold, cross-disciplinary agricultural research and fosters transformative partnerships. Operating with the aim to “Grow Global from South Australia,” it brings together stakeholders to co-create solutions that enhance sustainability, productivity and resilience. ReAL Agriculture leverages engaged research to shape the future of agriculture – from policy to paddock to product.

ReAL - Mount Gambier

Centred on our Mount Gambier campus, with a focus on local industries including forestry and wine, ReAL Mount Gambier provides connectivity to research capacity across all Adelaide University locations and all ReAL Innovation initiatives, to drive regional socio-economic progress.

ReAL - Whyalla

Centred on our Whyalla campus with a focus on local opportunities – including critical resources, green iron and health – ReAL Whyalla provides connectivity to research capacity across all Adelaide University locations and all ReAL Innovation initiatives, to drive regional socioeconomic progress.

ReAL - Space

ReAL Space brings together key Adelaide University infrastructure and expertise across campuses (e.g. EXTERRES Laboratory, AIML, Trailblazers, CRCs) to drive space innovation in fields including human factors, governance, sustainable agriculture, automated construction, and low impact resource processing.

First Nations Academy

Dedicated First Nations Academy, serving as the connecting ‘structure’ across SRTs and the home for relevant talent. It will be resourced to attract, steward and mentor talent, and support the implementation of the Food, Agriculture & Wine strategy.

Strategic enablers

Institutional capabilities support our research efforts:

Visionary research talent

Draw upon the diverse talent pool by attracting high-calibre industry experts and pillar-aligned academic specialists, and offering flexible employment contracts to enhance industry relevance.

Research impact ecosystem

Develop a bespoke training platform to upskill researchers in impact, translation, and adoption, addressing systemic research challenges and integrating mentoring and coaching practices.

Research accelerator funding

Develop a University-wide fund to provide rapid seed investment in high-impact fundamental and applied research, while connecting promising projects to incubators for accelerated upscaling and translation.

Translation and adoption pathway

Implement a tailored pathway to support commercialisation through targeted investment, IP support, and strategic industry alliances to improve in-field adoption and translation of research into market applications.

Engaged research connectivity

Leverage the Enterprise Hub to create a dedicated gateway that enables seamless, bi-directional, engaged research with industry partners, uniting multidisciplinary expertise across the university for meaningful collaboration.



Food, Agriculture & Wine also requires institutional support for multidisciplinary research across SRTs to fully realise 'powerful together' value creation between sectors, such as sustainable land use (linked with Sustainable Green Transition), dual-use technologies in diet and life expectancy (linked with Personal & Societal Health), and AI/machine learning applications in plant science and crop improvement.

Further enquiries

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Printed July 2025.