

UNSW Defence Research Institute

Company Overview

UNSW is a research-intensive university ranked in the world’s top 20 universities. We aspire to be Australia’s global university, improving and transforming lives through excellence in research, outstanding education and a commitment to advancing a just society. The UNSW Defence Research Institute (DRI) enables UNSW to use its research strengths to solve complex defence problems and to translate its world-class research into competitive advantages for the Australian Defence Force (ADF), industry and Australia’s like-minded international partners in the Indo-Pacific region.

Products

- UNSW is the only Australian national academic institution with an integrated defence focus. Its strengths are defence, national security, and engineering research.
- UNSW boasts a proud 58-year history of educating Australian and allied military personnel. UNSW Canberra at the Australian Defence Force Academy (ADFA) has been the academic partner of the ADF since 1967, with an international reputation for providing exceptional defence education and leading research.
- UNSW partners with defence, industry, government, and other universities to develop sovereign research capabilities. Capabilities that enable Australia and its allies to meet the demands of a constantly changing Indo Pacific defence and security environment.
- UNSW leverages its extensive capabilities across the spectrum of humanities, arts, built environment, business, design, law, social sciences, engineering, medicine and science to generate new knowledge and accelerate the defence concept to deployed capability cycle.
- UNSW defence and national security capabilities, including those aligned with AUKUS Pillar One and Two:
 - Hypersonic and counter-hypersonic measures
 - Nuclear engineering
 - Undersea capabilities
 - Quantum materials, technologies and computing
 - Information warfare and advanced cyber security
 - Artificial Intelligence
 - Robotics, autonomous systems, machine learning
 - Electronic warfare
 - Space
 - Human performance, protection and behaviours
 - Biotechnology
 - Engineering, materials and manufacturing
 - Sensors, communications and micro electronics
 - Power generation and control
 - Critical supply chain

Availability and Support

UNSW is focused on establishing strategic research and educational partnerships with government, industry and defence agencies across partner nations in the spirit of aggregating and amplifying world-leading capabilities through key programs. Some of our key defence focused programs include:

- Defence Trailblazer Program – Concept to Sovereign Capability
 - The Defence Trailblazer - Concept to Sovereign Capability is a key collaboration between UNSW and the University of Adelaide. The AUD\$200m four-year program will provide the impetus and financial capital to encourage, enable and implement research, translation, commercialisation and workplace upskilling. The program will accelerate proven defence concepts into commercial opportunities through targeted research in five high-priority areas, in collaboration with defence, government, industry and academia.
- Security & Defence PLuS Initiative
 - An academic, research and educational collaboration aimed at advancing AUKUS. The initiative combines the strengths of three leading defence research intensive universities on three continents – Arizona State University, United States, King’s College London, United Kingdom and UNSW, Australia to accelerate concepts to deployed capabilities.



Discriminators

- UNSW Key Facts
 - 6 Faculties, 1 College, 45 Schools and 7,800 researchers across four main campuses in Sydney and Canberra
 - Research and Development (R&D) focused university – 57 Centres and Institutes
 - Over 73,000 students from more than 130 countries
 - Annual operating income: AUD\$3 billion / USD\$1.9 billion
- Key Defence Industry Programs
 - Defence Trailblazer Program – Concept to Sovereign Capability
 - Security & Defence PLuS Initiative
- UNSW Key Institutes & Enablers
 - UNSW Defence Research Institute
 - UNSW Canberra at the Australian Defence Force Academy
 - UNSW Industry & Innovation
 - UNSW AI Institute
 - UNSW Institute for Cyber Security
 - UNSW Canberra Space
- Annual research revenue: approximately AUD\$600 million in externally-commissioned R&D
- One of the world’s top 20 universities
- UNSW Engineering is ranked 1st in Australia
- 1st in Australia for research quality and impact
- Defence 10x Accelerator
- UNSW Canberra Launch
- UNSW Capability Systems Centre
- UNSW RNA Institute
- UNSW Founders
- Australian Research Council (ARC) Centre of Excellence for Quantum Computation and Communication Technology (CQC2T)

Key Customers

- Royal Australian Air Force
- Australian Army
- Royal Australian Navy
- Defence Science and Technology Group (DSTG) (Australia)
- Commonwealth Scientific and Industrial Research Organisation (CSIRO) (Australia)
- Australian Nuclear Science and Technology Organisation (ANSTO)
- United States Department of Defense
- Defense Advanced Research Projects Agency (DARPA)
- United States Office of Naval Research Global
- Lockheed Martin
- BAE Systems Australia
- Babcock Australasia
- Huntington Ingalls Industries
- Airbus Defence and Space
- Northrop Grumman
- Raytheon
- Thales
- Silicon Quantum Computing (SQC)
- Diraq

Key Partnerships

UNSW is a member of the following defence industry and academic partnerships:

- Defence Science Partnership – Defence Science and Technology Group (Australia)
- Group of Eight (Go8) – Australia’s largest research-intensive universities
- PLuS Alliance – UNSW, Arizona State University and King’s College London
- Global Alliance of Technological Universities
- Association of Pacific Rim Universities
- NUW Alliance
- Sydney Quantum Academy
- Universitas 21
- NSW Defence Innovation Network (Australia)
- NSW Space Research Network (Australia)
- NSW Smart Sensing Network (Australia)
- CSIRO: Data61 (Australia)
- Security & Defence PLuS Initiative
- Defence Trailblazer Program

Quality Accreditations and Awards

UNSW is one of the world’s top universities:

- ≈19th globally in 2024 – QS World University Ranking
- ≈18th globally in 2023 – Times Higher Education (THE) Impact Rankings
- UNSW Engineering is ranked 1st in Australia – QS and THE
- 1st in Australia for International Research Network (15th globally)
- 1st in Australia in 2021 for the greatest number of new start-up and spinout companies founded through technology developed at UNSW

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