**Australian Government
Department of Industry,
Science and Resources**

Explore science, technology and innovation (javascript:void(0);)

Technology

The Australian Government is backing critical and emerging technologies to strengthen Australia's future.

Promoting and protecting critical technologies

Our **Critical Technologies Hub** (https://www.industry.gov.au/science-technology-and-innovation/technology#contact-footer) advises the government on critical technology opportunities, developments and risks.

Critical technologies are **current and emerging technologies with the capacity to impact our national interest** (https://www.industry.gov.au/publications/list-critical-technologies-national-interest). This includes Australia's:

- national security
- economic prosperity
- social cohesion.

The critical technology priority fields are:

- advanced manufacturing and materials technologies
- artificial intelligence (AI) technologies
- advanced information and communication technologies
- quantum technologies
- autonomous systems, robotics, positioning, timing and sensing
- biotechnologies
- clean energy generation and storage technologies.

Government actions to promote and protect critical technologies aim to:

- give Australians access to cost-effective, safe, secure and inclusive technologies
- promote Australia as a trusted partner for investment, research and innovation
- support regional resilience and competitive, trusted and diverse technology innovation

- enable Australian industries to thrive and maximise intellectual property (IP).

Critical Technologies Statement

The Critical Technologies Statement outlines how the Australian Government is supporting technologies that can impact our national interest.

Supporting critical technology development and adoption

We are supporting Australia's critical technology industries and capabilities. These technologies are providing new opportunities to create jobs, drive economic growth and boost competitiveness.

Artificial intelligence (AI) (https://www.industry.gov.au/science-technology-and-innovation/technology/artificial-intelligence)

Quantum (https://www.industry.gov.au/science-technology-and-innovation/technology/quantum)

Robotics (https://www.industry.gov.au/science-technology-and-innovation/technology/robotics)

Shaping global critical technologies standards

We are increasing Australia's influence on the design and use of international standards for critical technologies. This will help ensure that these products, services and systems are safe, consistent, trusted and reliable.

Find out about our **work and programs to support industry develop critical technology standards** (https://www.industry.gov.au/science-technology-and-innovation/technology/critical-technology-standards).

Growing the cyber security industry and workforce

We are growing Australia's cyber security industry and workforce to strengthen our digital economy.

AUCyber Explorer (https://www.aucyberexplorer.com.au/)
AUCyber Explorer provides detailed data on Australia's cyber security workforce, jobs and career pathways.

Questacon's cyber program (https://www.questacon.edu.au/about/programs/questacon-cyber)

Questacon is increasing cyber security awareness and job readiness through engaging education programs.

AustCyber (https://www.austcyber.com/)

AustCyber supports the development of a globally competitive cyber security sector. It is part of the Industry Growth Centres initiative that our department oversees.

Coordinating digital economy policy and regulations

The **Digital Technology Taskforce** (https://www.industry.gov.au/science-technology-and-innovation/technology#contact-footer) coordinates whole-of-economy digital policy. This ensures we keep up to date on the changing digital landscape in our increasingly digital world.

The taskforce monitors developments in emerging technologies and the digital economy. This includes examining:

- changes in the digital technology landscape
- impact and uptake of high potential emerging technologies
- digital adoption by small and medium enterprises
- digital skills and inclusion
- the role and use of data in the digital economy
- international policy developments.

The taskforce helps inform the government's digital economy policies and regulations.

Building digital capabilities

These tools can help your business innovate with digital technologies.

Digital Readiness Assessment Tool (https://business.gov.au/online/what-is-your-business-digital-maturity)
Self-assess your business's digital maturity.

Skill Finder (https://www.skillfinder.com.au/online)
Find digital career pathways and courses.

Digital Directors Training Program (http://www.companydirectors.com.au/digital-directors)
Learn about innovative technology leadership.

Geocoded National Address File (G-NAF) and Administrative Boundaries (AB) data

The Geocoded National Address File (G-NAF) contains the details of every physical address in Australia. The dataset is free to the public and updated every 3 months.

Strengthening manufacturing through technology

Manufacturing

Technologies support our efforts to strengthen Australian manufacturing.

Latest news

FEB 2025

Australia signs Paris AI Action Summit statement

(https://www.industry.gov.au/news/australia-signs-paris-ai-action-summit-statement)

Read about our work with international partners to promote an inclusive approach to AI safety and governance.

FEB 2025

New IGP funding will power up battery, drilling and agtech technology

(https://www.industry.gov.au/news/new-igp-funding-will-power-battery-drilling-and-agtech-technology)

The Australian Government has awarded $2.5 million in funding from the $392 million Industry Growth Program (IGP).

FEB 2025

Make new quantum connections in Japan (https://www.industry.gov.au/news/make-new-quantum-connections-japan)

We're seeking expressions of interest from Australian quantum technology companies to join a delegation to Expo 2025 Osaka in May. Applications close 3 March.

JAN 2025

$5.5 million to boost Australia's quantum future (https://www.industry.gov.au/news/55-million-boost-australias-quantum-future)

Round 2 of the Critical Technologies Challenge Program (CTCP) invites solutions to market-led challenges in biosecurity, First Nations health, transport and logistics, and energy....

JAN 2025

Innovative crop harvester, faba bean and firefighting robot projects get IGP grants

(https://www.industry.gov.au/news/innovative-crop-harvester-faba-bean-and-firefighting-robot-projects-get-igp-grants)

The Australian Government has awarded over $26.5 million in grant funding to date from the $392 million Industry Growth Program (IGP).

DEC 2024

Exploring AI adoption in Australian businesses (https://www.industry.gov.au/news/exploring-ai-adoption-australian-businesses)

More Australian businesses are using AI according to data collected by Fifth Quadrant's Business sentiment tracker.

DEC 2024

Australia and Singapore agree to continue AI cooperation

(https://www.industry.gov.au/news/australia-and-singapore-agree-continue-ai-cooperation)

The 2 countries have renewed a memorandum of understanding (MoU) to help progress the safe and responsible uptake of AI.

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Contact us

AI team artificial.intelligence@industry.gov.au

National AI Centre NAIC@industry.gov.au

Quantum team quantum@industry.gov.au

Critical Technologies Hub CTHub@industry.gov.au

Digital economy team DigitalEconomy@industry.gov.au

Cyber security team cybersecurity@industry.gov.au

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Contact us at the department

Department of Industry, Science and Resources

General Enquiries

+61 2 6213 6000

Industry House,
10 Binara Street,
Canberra

Department of Industry
ABN: 74 599 608 295

ACKNOWLEDGEMENT OF COUNTRY

Our department recognises the First Peoples of this Nation and their ongoing cultural and spiritual connections to the lands, waters, seas, skies, and communities.

We Acknowledge First Nations Peoples as the Traditional Custodians and Lore Keepers of the oldest living culture and pay respects to their Elders past and present. We extend that respect to all First Nations Peoples.