



# PROTECTING AND PROMOTING CRITICAL TECHNOLOGIES

Critical technologies are current and emerging technologies with the capacity to significantly enhance, or pose risk to, our national interests (economic prosperity, social cohesion and/or national security).

## *Access to secure critical technologies is fundamental to a prosperous and resilient Australia*

- Australia's economic success, security and social cohesion depends in part on our ability to securely harness the opportunities created by critical technologies.
- Technological advances are a significant driver of increased productivity, growth and improved living standards.
- Technology is fundamental to our economy, and our online, connected and globalised twenty-first century society, providing a key platform for how we communicate with one another and engage the world around us.
- We have seen the value of critical technologies for our resilience in recent emergency and crisis situations. Communicating information during bushfires helped the community make informed decisions. Australians can continue to benefit from the development and availability of such technologies as part of our ordinary lives, as well as those technologies helping us respond to challenges and emergency situations.
- Australian scientists and researchers have the Government's full support. We acknowledge that our education and research sector is a major export and significant contributor to our economy, where our world-class reputation for academic integrity is central to attracting investment and talent.
- We are an innovative nation, one that develops new ideas and quickly adopts technology from overseas. Australia is also a world leader in some key areas of technological research, and Australian industry is keen to invest in emerging technologies. However, overseas markets supply many of our technological requirements.
- To facilitate increased investment and resilience, we need to ensure enduring access to the supply of diverse and secure critical technologies. Our access and strength as a nation come from open trade and appropriate investment, diverse, competitive and open markets, and transparent collaborative research.

## *New applications of technology must consider economic opportunities, national security risks, and impacts on social cohesion*

- Advances in technology underpin our future prosperity but they also have the potential to harm our national and economic security interests and undermine our democratic values and principles.
- Disinformation and foreign interference have been enabled and accelerated by new and emerging technologies, and there are profound shifts in the technologies that are being developed and militarised in our region.

- One example is artificial intelligence (AI), which will provide new opportunities to significantly improve our way of life. AI can improve remote healthcare through AI-assisted health diagnostics, defend against malicious cyber activity by identifying suspicious patterns in network data, improve electricity network efficiency by managing the variability of renewable energy supply in an optimal way, and improve business productivity and decision making through better market forecasting and insights. But AI systems can also be used against Australia, and to harm our interests.
- Our world-class science and technology institutions and businesses can also be a target for malicious activity. These activities can result in theft of intellectual property or technology, undermining Australia's strategic and commercial advantage

***Everyone has a role to play to ensure Australia can safely, securely and efficiently adopt critical technologies***

- Government has a role to play in assisting society, academia and businesses to build the right skills and acquire the necessary tools to manage their own risks.
- These skills and tools are essential to efficiently and effectively adopting critical technologies in a safe and secure manner.
- Government will not shy away from hard decisions to safeguard our security and our actions will take account of the risks and opportunities involved.
- Government will ensure our decision making is proportionate to risk, taking account of the full set of economic, social, foreign policy, trade, and national security factors. Government is expanding its capability to manage these issues in relation to critical technologies.
- The Critical Technologies Policy Coordination Office has been established in the Department of the Prime Minister and Cabinet to coordinate critical technologies related policy across government and to provide a strategic foresight capability and policy overview to Government.
- Government will also continue to engage in meaningful consultation with industry and the public, and across all levels of government, to manage technology risks.
- Government alone cannot manage all risks. Industry is also responsible for protecting Australians' data and privacy and preventing risks to our national interest from the use of critical technologies. Working together, industry and Government will invest in and use critical technologies that are secure to protect Australians, their data, and our national interests.
- Government will take a principles-based approach informed by our liberal-democratic values to set expectations that technology providers act securely, with integrity and in accordance with Australia's legislative and regulatory frameworks.
- Our goal is to ensure Australians are able to access cost-effective, safe and secure technologies.

***We will work internationally to shape a trusted critical technology ecosystem***

- We are not alone in addressing the implications of new technologies and the risks and opportunities they create.
- Australia seeks to be a trusted and influential partner in the international community on critical technology issues.

- Our international engagement seeks to shape the design, development and use of secure, resilient and trusted technology in line with Australia's values and interests, and an international environment in which technology fosters sustainable economic growth, development and stability.
- Australia benefits from the growth of a connected, prosperous and resilient Indo-Pacific enabled by safe and secure critical technologies.
- Technical innovation is driven by trusted standards that encourage fair competition and diversity in critical technology markets. Through international cooperation, Australia will actively promote standards that are consistent with international trade and investment obligations, enable fair competition, encourage innovation and create economic opportunity for new entrants.
- We will support and shape standards that foster interoperability, innovation, transparency, and security by design in global forums, such as the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC) and the International Telecommunications Union (ITU).
- As an important player in global economic, scientific and technology ecosystems, Australia will work with other nations to shape the global technology ecosystem in a way that not only enhances our security and prosperity, but supports positive security outcomes for all nations.
- Areas of shared interest where Australia will seek to collaborate include:
  - Working to encourage a competitive playing field for critical technologies, where global rules, standards and norms ensure technologies are safe and secure;
  - Working with international partners to maintain and advocate for increased diversity in open, competitive critical technology markets and supply chains that are based on fair and transparent rules;
  - Working towards greater transparency in critical technology supply chains to better understand risks and increase resilience to supply chain shocks;
  - Upholding our international trade and investment obligations;
  - Maintaining the flow and integrity of collaborative science and innovation while preventing illegal or unwanted knowledge transfer;
  - Controlling access to technologies that are restricted by law or international arrangements, or that could harm our national security or violate human rights; and
  - Engaging with our regional partners to support them to adopt secure and reliable technologies.
- Our engagement is guided by core principles and values of human rights, legality, fairness, open competition, security, transparency, respect and integrity.