

NATIONAL SECURITY SCIENCE & TECHNOLOGY STRATEGY

STAKEHOLDER CONSULTATION

NATIONAL SECURITY SCIENCE AND TECHNOLOGY STRATEGY

In an evolving and complex security environment, Australia's scientific and technological base is one of our greatest national security assets and underpins our ability to counter current and emerging national security threats. It is therefore timely we strategically assess and advance national security science and technology needs to meet current and future requirements.

The National Security Science and Technology Centre (NSSTC) is seeking stakeholder views from all sectors of Australia's national security science and technology community – including national security departments and agencies, publicly funded research agencies, other research agencies, universities and industry, to help develop a new National Security Science and Technology Strategy.

A series of questions are provided to help structure your response. The NSSTC will consider all feedback received in developing the Strategy.

Contributions are due to the NSSTC at nsststrategy@dst.defence.gov.au by 29 October 2019. Please do not hesitate to email the NSSTC should you require any further information.

STRATEGIC CONTEXT

Science and technology plays a crucial role in the progress and security of Australia. Being at the forefront of science and technological advancements provides our national security community access to advanced capabilities which play a fundamental part in the protection of Australians and our way of life.

Many national security capabilities have emerged from robust and dedicated investments in science and technology research and development. However, as we enter an era of significant change, unprecedented in its scale and pace – both geostrategically and technologically – we need to ensure that science and technology contributions to the national security community remain progressive and cutting-edge, both now and into the future.

Over the next decade our national security community will face imposing challenges. Accelerating technological change, challenges from globalisation, geo-strategic rivalry, Islamist terrorism, environmental impacts and foreign influence continue to shape our response to emerging national security challenges.

We need to actively pursue solutions, mechanisms and arrangements to counter current and future threats and that provides Australia with a strategic advantage. The pace of technological change therefore presents both challenge and great opportunity.

The intent of the National Security Science and Technology Strategy is to harness these advancements to Australia's advantage and develop smarter, more agile and innovative ways through which to address Australia's national security needs.

NATIONAL SECURITY SCIENCE & TECHNOLOGY STRATEGY

VISION: A MORE SECURE NATION THROUGH ADVANCING SCIENCE AND INNOVATION

GOALS

PARTNER

Create a united and cohesive national security science and technology community to increase collaboration and partnerships, domestically and internationally

INTEGRATE

Incorporate science and technology as an indispensable component of national security policy that enables the transition of science and innovation to world-leading national security capability

INNOVATE

Set the direction for transformational change that allows the national security community access to latest science and technology developments

HOW DO WE DELIVER

Strengthen **whole of government governance** mechanisms to prioritise research effort and funding across the community

Strengthen the use of science for national security **policy**

Develop **pipelines** to address short, medium and long-term requirements

Strengthen **cross-agency collaboration and partnerships** with publicly funded research agencies, international partners, academia and industry

Increase the **transition** of science and technology to capability

Innovate to develop cost-effective and high-performance science and technology solutions

Provide opportunities for the community to leverage existing and emerging capabilities

Invest in Australian national security science and technology capabilities

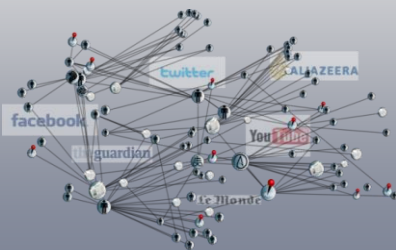
Promote and contribute to **international best practice**

NATIONAL SECURITY SCIENCE AND TECHNOLOGY PRIORITIES

The six National Security Science and Technology Priorities to help shape the program investment, government policy and engagement with the innovation sector.

Intelligence

Data sources / collection
Data analytics / integration
Dissemination of product



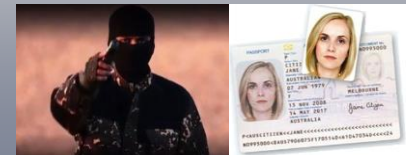
Technology Foresight

Cyber / digital disruption
Advanced sensors
Stand-off sensing
Autonomous systems
Advanced materials
CBRN / Medical countermeasures
Enhanced human performance
Biometrics



Border Security and Identity Management

Biometric capabilities
Identity management / people scanning / tracking
CBRNE screening / detection
Other screening / detection



Investigative Support and Forensic Science

Detection and collection (overt / discreet)
Rapid analysis (in-field)
Deep analysis / forensic data analytics
Attribution



Cyber Security

Anticipate Vulnerabilities
Strengthen cyber systems and critical infrastructure
Enhance response and recovery from cyber attack



Preparedness, Protection, Prevention and Incident Response

CBRNE detection / protection / response
Other First Responder capabilities
Physical and social resilience
Forecasting, modelling and risk assessment
Information management



WHAT THE NATIONAL SECURITY SCIENCE AND TECHNOLOGY STRATEGY WILL DELIVER:

A MORE SECURE NATION THROUGH ADVANCING SCIENCE AND INNOVATION

Threat context

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Way forward

NATIONAL SECURITY SCIENCE & TECHNOLOGY STRATEGY – CONSULTATION QUESTIONS

Strategic Challenges (*key areas of science and innovation which should be addressed in a national security science and technology strategy*)

- What do you see as the biggest threats and opportunities?
- Does the proposed vision, goals and objectives capture the necessary major themes? If not, what suggestions could you offer?

Partnerships and Collaboration (*Enhancing government, industry, academic and international partnerships to improve our national security capabilities*)

- What avenues does your organisation currently have to engage in the national security science and technology environment? Are these effective? If not, how can they be improved?
- What exemplars of good partnerships should we foster and what are the constraints we need to address?

Integration (*strengthening the application of science and innovation for the national security community*)

- How can we better transition science and innovation to policy and capability (current challenges and opportunities)?
- What is the role of government and where can it best add value?

Innovate (*shaping and harnessing the latest science and technology developments*)

- How can we better balance immediate versus long-term national security capability needs?

Overall

- Are there any other aspects you view the Strategy should include?