



## OP-ED

## A WORD FROM THE CHIEF DEFENCE SCIENTIST PROFESSOR TANYA MONRO

DST Group has gone through an evolution over recent times but continues to deliver on its core mission of providing world leading science and technology advice to the Department of Defence.

**PROFESSOR TANYA MONRO | CHIEF DEFENCE SCIENTIST**

**THE** 2020 Defence Strategic Update and 2020 Force Structure Plan, released on 1 July 2020, outline a new strategy for Defence and the capability investments to deliver it. Our strategic environment is now more complex, with Australian interests being more directly challenged than in the past – sharper prioritisation is required.

The new strategic policy framework for Defence has at its core three objectives: to shape Australia's strategic environment; deter actions against Australia's interests; and respond with credible military force, when required. Science and technology (S&T) plays a critical role across Defence capability. We must effectively shape and harness the national S&T enterprise in order to achieve a cohesive and agile innovation system that can deliver defence priorities.

The 2020 Defence Strategic Update asserts the need for emerging and disruptive technologies to be rapidly translated into weapons systems – such as sophisticated sensors, autonomous systems, cyber capabilities, and long-range and high-speed weapons. Defence, through the Defence Science and Technology Group, will play a stronger role in enabling, coordinating and focusing support to Defence from the national S&T enterprise including universities, other publicly funded research agencies and industry, as outlined in More, together: Defence Science and Technology Strategy 2030.

The 2020 Force Structure Plan delivers increased funding to innovation and capability acceleration programs to deliver on Australian industry's innovative solutions for Defence capability. The Government has committed to invest around \$3 billion across Defence innovation, science and technology over the next decade. It will enable the innovation programs to be driven by a more



**ABOVE:** Chief Defence Scientist Professor Tanya Monro.

comprehensive, coherent and agile innovation system that aims to strengthen the link between Defence's capability plans with industry policy initiatives, Defence's reform program, the More, together strategy, and clear resourcing plans. A more pro-active approach to the development of incremental and disruptive technologies will help bridge the 'valley of death' between technology development and acquisition.

New investments outlined in the 2020 Force Structure Plan demonstrate the potential for increased involvement of Australian industry, including investments in cyber, autonomous systems, artificial intelligence, radar, communications, and space-based capabilities and sensors. These investments offer the opportunity for Defence to work with industry to strengthen the Australian industrial base in these advanced technological areas.

Continued investment in the Next Generation Technologies Fund (NGTF) and the Defence Innovation Hub will underpin Defence's commitment to stability and growth in the innovation sector. The NGTF engages Australian industry, uni-

versities and research organisations to research emerging and future technologies with potential to deliver game-changing capabilities for Defence, and will make further investments worth approximately \$1.2 billion over the next decade. The Defence Innovation Hub funds Australian and New Zealand entities to develop innovative technologies with the potential to enhance Defence capabilities, with over \$800 million of further investment planned over the decade.

A new Capability Acceleration Fund will be introduced from the middle of this decade to ensure Defence's innovation system has the capacity to meet the demands of future technological development. Through this fund, the Government will invest over \$130 million to support the development of key disruptive technologies with industry, taking promising technologies through to acquisition.

Through the Australian Industry Capability Program, the Government will ensure Australian companies can participate in high-value, high-tech projects that will support the development of Australia's sovereign defence industrial base.

Building Australia's sovereign defence industrial base is a long-term body of work that requires coordinated effort. The 2020 Force Structure Plan expands the Government's investment to build a sovereign industrial base that is internationally competitive, innovative and high-tech to meet Australia's defence capability needs and national economic goals. This investment will deliver an Australian Defence Force (ADF) better suited to meet Australia's most pressing defence challenges, to deny or defeat threats as they arise and provide significant opportunity for Australian industry. It will ensure the ADF is better supplied, more resilient and able to sustain a technology edge into a more challenging future.