



Australian Government



**DEFENCE INDUSTRY &  
INNOVATION**

**NEXT GENERATION  
TECHNOLOGIES FUND**

# Defence Cooperative Research Centre Program





## MESSAGE FROM THE CHIEF DEFENCE SCIENTIST

The Defence Cooperative Research Centre program is one of the major initiatives under the Next Generation Technologies Fund. Defence seeks to work with Australia's research and development community to develop next generation technologies that have game-changing potential. This program will bring together a world-class team from across Australian academia, publicly funded research agencies and industry to engage in multi-disciplinary research and innovation.

The CRC model is proven program for research collaboration and partnership, with more than 215 CRCs having been established over 18 selection rounds since 1990. Over \$4.2 billion has been invested in the CRC program since its inception to support Australian industry. Defence has participated in several CRCs, including CRCs for Advanced Composite Structures, for Infrastructure and Engineering Asset Management, for Sensor Signal and Information Processing, for Data to Decisions and the Defence Materials Technology Centre.

Building on the lessons learnt from participating in these Cooperative Research Centres, Defence has adapted the CRC program into a mission-driven program with specific goals and objectives for each CRC. Participants that join a Defence CRC will be required to conduct research projects and innovation activities that are aligned with the publicly stated goals and objectives.

The first \$50 million Defence CRC is focused on Trusted Autonomous Systems to deliver a step change in the development of reliable, dependable and resilient unmanned technologies that operate with high integrity to successfully conduct missions in dynamic and unpredictable warfighting environments.

Further Defence CRCs will be established on other game-changing technologies that are aligned with the priorities of the Next Generation Technologies Fund.

I am confident the Defence CRC program will have a big impact in driving innovation to address the future capability needs of the Australian Defence Force.

**Dr Alex Zelinsky AO**  
Chief Defence Scientist



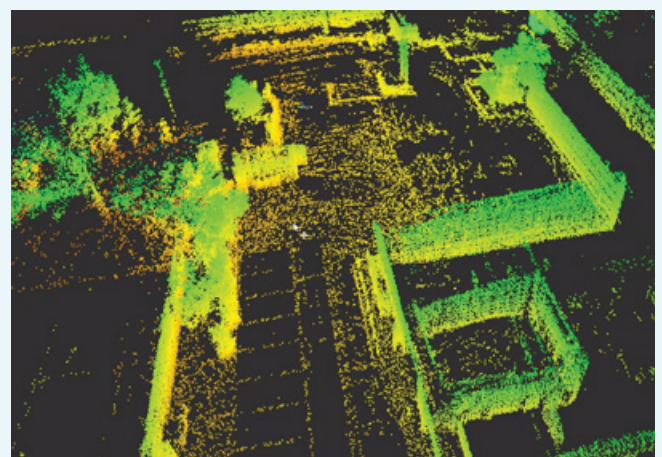
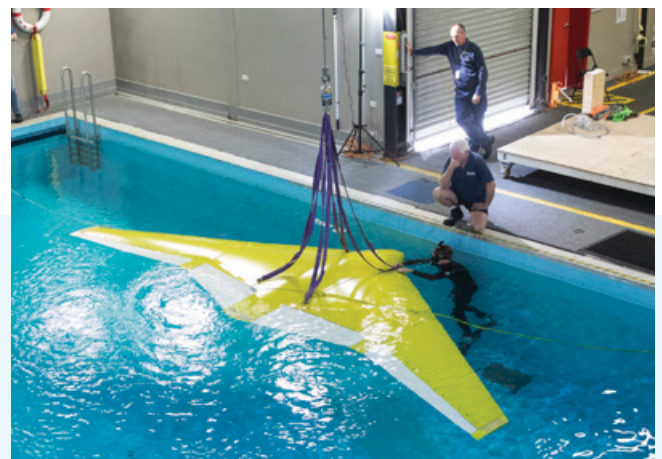
## MESSAGE FROM THE CHIEF EXECUTIVE, CRC ASSOCIATION

Companies that collaborate with publicly-funded research agencies are more profitable than companies that don't. For over a quarter of a century, Australia's Cooperative Research Centres, CRCs, have shown that. The introduction of Defence CRCs is an exciting development for Australian innovators and industry.

More companies will be able to collaborate with more innovators on issues of critical importance to Australia. Defence CRCs allow for SMEs to have an impact with their great ideas or great capabilities. Small business people know how to innovate and they are flexible and adaptable. So, the Defence CRCs need to have them actively involved to deliver the absolute best outcomes for our Defence Forces. New products, new services and new companies will evolve out of that process and anyone with a good idea should look to get involved.

The Cooperative Research Centre culture should allow for researchers and small businesses to find those sweet spots of innovation where progress becomes supercharged. When you get that great mix of ideas and practicality, great things happen. SMEs should put their hand up to get involved. The opportunity to build our industrial capacity as well as our defence capability is not to be missed.

**Tony Peacock**  
CEO Cooperative Research Centres Australia





# DEFENCE COOPERATIVE RESEARCH CENTRES TO DELIVER CRITICAL DEFENCE CAPABILITIES

The Defence Cooperative Research Centre (CRC) program is a key element of the Next Generation Technologies Fund which complements the Defence Innovation Hub as the two core initiatives of the new Defence Innovation System outlined in the 2016 Defence Industry Policy Statement.

The Defence CRC program builds on the government's long-standing Cooperative Research Centre model with a specific focus on Defence needs. It will link Australian researchers in industry, particularly Small to Medium Enterprises (SMEs), universities and public-funded research agencies to find solutions for Defence's future technology challenges.

Defence CRCs will undertake mission-driven research projects with a clear focus on delivering outcomes that are aligned to a defined set of goals and objectives for the Australian Defence Force. Defence will determine the research field for each CRC prior to its establishment.

Each Defence CRC will have participation from Defence, industry, universities and research agencies. Participants will be selected on the basis of their research excellence and capacity to contribute their expertise to the technology

area of relevance to the Defence CRC's goals and objectives. All projects in the CRC will be industry-led with research contributions from universities and research agencies.

Intellectual property developed in the course of Defence CRC projects will generally belong to the

relevant industry project participant. However, Defence will have a royalty-free licence to use the IP for research purposes. Sensitive technologies developed by the Defence CRC may be subject to Defence Export Controls.

Defence expects to invest \$100–150 million in the Defence CRC program over the ten year life of the Next Generation Technologies Fund. Each Defence CRC will initially be set up for a 5–7 year period, with the potential for a one-off extension of up to 3 years to complete the program.

The number of CRCs, their research focus and scope of work program will align with the priority areas identified under the Next Generation Technologies Fund.

The first Defence CRC will focus on Trusted Autonomous Systems. Defence will announce the next CRC in 2018–19.

The Defence CRC program is administered by the Department of Defence and the Department of Industry, Innovation and Science. Information about the program guidelines, industry and researcher participant application can be found at [www.business.gov.au/cdic](http://www.business.gov.au/cdic).



*Next Generation Technology Fund priority areas*

## DEFENCE CRC ON TRUSTED AUTONOMOUS SYSTEMS

The Defence CRC on Trusted Autonomous Systems will receive an annual funding of \$8 million with a maximum of \$50 million over a seven year period.

It seeks to deliver game-changing technologies for autonomous systems that ensure reliable and effective cooperation between people and machines during dynamic military operations. Existing autonomous and robotic technologies that operate in the manufacturing and mining sector are effective in controlled environments but are not readily extendable to deal with the scale, uncertainty and dynamics of Defence operations.

Defence needs autonomous systems to be highly trusted, robust and resilient and the CRC will bring together the best researchers from industry, universities and public-funded research agencies to develop the advanced military platforms of the future.

Mr Jim McDowell, former CEO of BAE Systems and Chancellor of the University of South Australia, is the Chair of the Defence CRC on Trusted Autonomous Systems. The chair is responsible for establishing the Defence CRC as a limited liability company, identifying the foundation participants and developing a research program. A Board will be elected by the CRC participants.



*Mr Jim McDowell*

# HOW IT WORKS

## GRANT OPPORTUNITY IS PUBLISHED AND THE DEFENCE COOPERATIVE RESEARCH CENTRE (DEFENCE CRC) PROGRAM IS LAUNCHED

Minister for Defence Industry launches the Defence CRC Program. Program guidelines are published on [www.business.gov.au](http://www.business.gov.au) and [www.grants.gov.au](http://www.grants.gov.au).

## DEFENCE CRC AND GRANT FUNDING ANNOUNCED

Minister announces the establishment of a Defence CRC, its chair, the maximum grant funding available, funding term, and the priorities to be addressed under the Next Generation Technologies Fund.

## OPPORTUNITIES TO PARTICIPATE IN DEFENCE CRC ARE PUBLISHED

Defence will publish details of participant opportunities in the Defence CRC on the Defence Innovation Portal. Organisations may apply to become a participant at formation and any time thereafter.

## DEFENCE CRC CHAIR FACILITATES APPLICATIONS TO JOIN THE DEFENCE CRC

Chair invites applications from eligible entities to join the Defence CRC as founding participants.

## CHAIR SUBMITS PLAN FOR FORMATION OF DEFENCE CRC

Chair submits the plan for the formation of the Defence CRC to Defence including the founding participants, the goals and objectives, a summary of work, grant funding and known funding contributions from other sources.

## DECISION ON PLAN IS MADE

Defence provides advice on the plan. Minister decides if the plan, funding and funding term are approved.

## CRC FORMED AND ENTERS GRANT AGREEMENT

The Defence CRC is formed as a company limited by guarantee and enters into a grant agreement with the Commonwealth.

## PROJECT DEVELOPMENT AND APPROVAL

The Defence CRC develops project proposals in consultation with participants and the Defence CRC Scientific and Engineering Advisory Panel. The Defence CRC Board will approve projects aligned with the goals and objectives.

## SELECTION AND APPROVAL OF PROJECT PARTICIPANTS

The Defence CRC Board will invite participants and, where appropriate, third parties to participate in the project. The Board will consider applications and determine the project participants.

## PROJECT AGREEMENTS

Approved project participants will enter into a project agreement with the Defence CRC company.

## DELIVERY OF PROJECTS BY DEFENCE CRC

The Defence CRC undertakes the grant activity as set out in the grant agreement. The Department of Industry, Innovation and Science manages the grant by working with the Defence CRC, monitoring progress and making payments.

## EVALUATION OF DEFENCE CRC

Defence evaluates the performance of the Defence CRC annually against the goals and objectives. An external evaluation must be undertaken of a Defence CRC in the second to last year of its funding term.

## EVALUATION OF THE DEFENCE CRC PROGRAM

The entire program will be evaluated by Defence in partnership with the Department of Industry, Innovation and Science.

## INNOVATION PORTAL

The portal website is home to Defence innovation priorities and helpful documents like our new intellectual property strategy and contracting framework. It's also where you can submit your innovation proposals for the Next Generation Technologies Fund and the Defence Innovation Hub.

## DEFENCE CRC PROGRAM LEAD

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**13 28 46 | [www.business.gov.au/cdic](http://www.business.gov.au/cdic)**