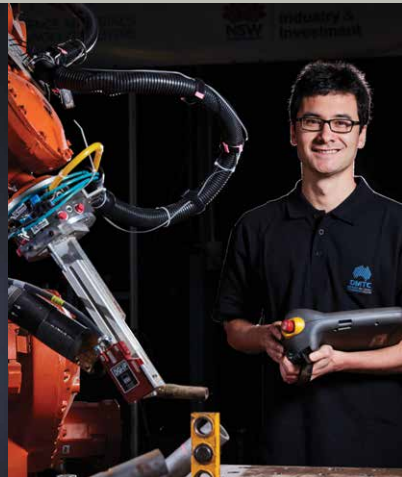




CREATING FUTURE CAPABILITY



COMPANY OVERVIEW



5 themes addressing
KEY DEFENCE PRIORITIES

Active across ALL
AUSTRALIAN STATES

402
PEOPLE
directly involved in DMTC activities

57 **PARTNERS**
working together
for a more
SECURE future

**BEST
PRACTICE
business
processes**

VISION

To provide technology solutions enabling industry to enhance Australian Defence and national security capability.

MISSION

DMTC leads, facilitates and manages cooperative research and development in the defence and related sectors in manufacturing, engineering and applied science to create and enhance Australian industrial capability. Defence and national security customers, industry and the research sector are key stakeholders.

PARTNERS

DMTC is comprised of partner organisations that contribute resources towards joint research and development activities. By working together in a collaborative environment, our partners achieve far greater technology and performance outcomes more quickly and cost-effectively than by pursuing research and development activities independently.

MODEL

DMTC's collaborative model:

- fosters enduring collaborative relationships between prime defence contractors, SMEs, research organisations, industry bodies and Defence
- features an intellectual property (IP) model focused on rapid utilisation and exploitation of IP by our industry and research partners
- simplifies the formalisation of collaboration with standardised agreements

- leverages resources from partners, providing highly cost-effective outcomes
- maintains and benchmarks the balance between technology excellence and commercial outcome
- delivers impact for the Defence customer and the research and industrial sectors.

WHO WE ARE

The DMTC community comprises partners from industry, research and government organisations, who work collaboratively to enhance Australian Defence capabilities and strengthen industrial capacity.

Overseen by a Board of Directors, DMTC's management team maintains an efficient operational structure, underpinned by benchmarked continuous improvement and quality management principles. DMTC's partners and activities are located across all Australian states.

Operating since 2008, DMTC is a not-for-profit company, limited by guarantee.

WHAT WE DO

DMTC conceptualises, manages and delivers collaborative research and development projects in a broad range of technical areas aligned to priorities and challenges articulated by Defence and other Australian Government research agencies.

DMTC applies a consistent and proven model for project development, project management and delivery. Projects are selected and defined through a structured process that starts with understanding Defence's needs and requirements and are supported by the injection of research expertise and participation of capable Australian industrial partners.

Our model focuses all available resources on delivering benefits – for the Defence customer and for our partners – through applied research and development.

DMTC's role in the Defence innovation system, specifically through the new Defence Innovation Hub, was confirmed in the 2016 Defence Industry Policy Statement (DIPS).

Collaborating through DMTC allows companies to leverage existing relationships with Defence and research agencies and build their Australian supply chains. DMTC's standardised approach to contract management and our project oversight role removes an administrative burden and allows industry partners to direct all resources to realising project outcomes.

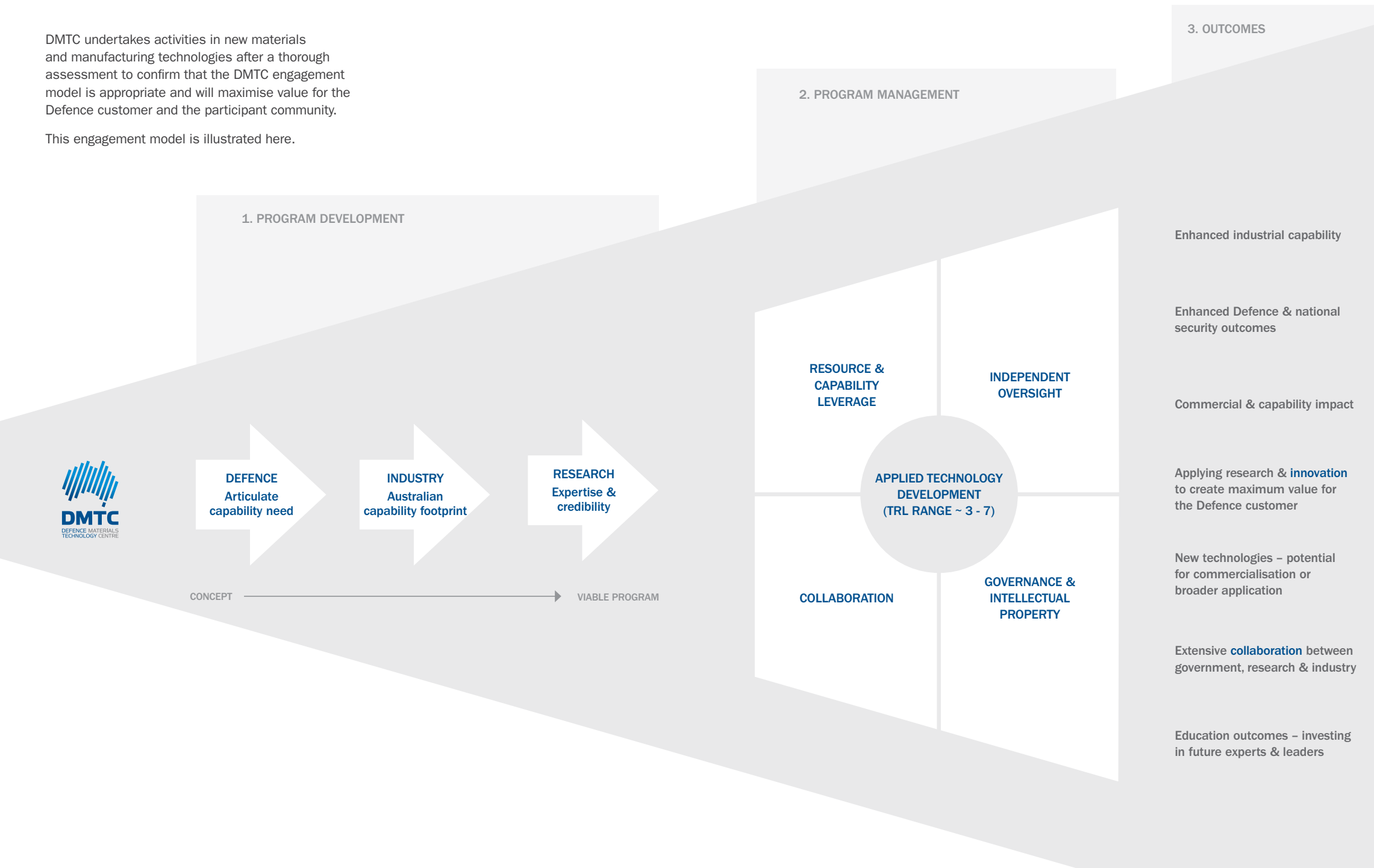


An epoxy-coated sample of steel embedded in resin is inspected for degradation using a Raman Spectrometer at Queensland University of Technology (QUT).

ENGAGEMENT MODEL

DMTC undertakes activities in new materials and manufacturing technologies after a thorough assessment to confirm that the DMTC engagement model is appropriate and will maximise value for the Defence customer and the participant community.

This engagement model is illustrated here.



Dr Minoe Naebe and Dr Aaron Seeber showcase a ceramic applique for combat helmets at Deakin University.



TECHNOLOGY READINESS LEVELS

Technology Readiness Levels (TRLs) are a standardised numerical indicator system for the level of maturity of a technology. TRLs provide a common language to describe the status of a technology in development, ranging from the lowest level of TRL 1 (identification of an idea or opportunity) through to TRL 9 (a fully tested product or system ready for production and/ or commercial sale).

DMTC projects require the TRL of the technology in question to be defined at the outset of project activity, tracked as a project advances and documented in

the project closure statement. DMTC rigorously assesses TRLs in all of its project activities, including independent validation at key stages of each project.

As a general guide, the bulk of DMTC's activities are in the range from TRL 3 through to TRL 7 or 8. TRLs for each project are displayed in graphs in DMTC's Annual Report which is available in print and online at www.dmtc.com.au/publications

PROGRAMS AND TECHNOLOGIES

DMTC currently operates five overarching programs, which are developing technologies, materials and processes that will enable industry to enhance Australian Defence and national security capability. These programs are titled **Sea, Land, Air, Enabling Technologies** and **Medical Countermeasures**. Within each program, several individual projects are underway.

Our projects have historically focused on materials, manufacturing processes and associated technologies. While this important work will continue, new programs such as Medical Countermeasures are extending our reach into new technical fields where it has been assessed that DMTC's engagement model is appropriate and where our proven track record of successful collaboration will add value to the outcomes to be achieved.

Technical areas in which DMTC facilitates projects include:

PRODUCTION, MANUFACTURING AND FABRICATION

- Machining
- Tooling
- Additive manufacturing
- Bonding and joining
- Welding
- Casting
- Automation
- Design for lightweighting
- Modeling and simulation
- Microfluidics
- Electronics
- Sensors

SUSTAINMENT TECHNOLOGIES

- Prognostic health monitoring
- Repair
- Fatigue
- Coatings
- Corrosion
- Modeling and simulation

ENABLING TECHNOLOGIES

- Metals
- Composites
- High temperature
- Modeling and simulation
- Armour
- Steels
- Textiles
- Ceramics
- Piezoelectric crystals
- Power and energy
- Polyurethanes
- Molecular biology
- Cellular biology
- Microbiology
- In vitro diagnostics
- Genetics

MANAGING INTELLECTUAL PROPERTY

The Australian Government's 2016 DIPS calls for '*closer collaboration between Defence, industry and research organisations to jointly develop game-changing innovation and commercialisation opportunities*'.

The Defence Innovation Hub has developed a principles-based IP framework to underpin collaborative activities, and DMTC's IP policy is expressly aligned with this.

The prime objective of DMTC's policy is that all IP generated under DMTC projects should be commercially exploited by the industry partners involved in the project in order to maximise the creation of a sustainable industry base in Australia, while protecting Defence's rights.

DMTC's collaborative arrangements facilitate innovation and allow joint industry, researcher and Defence engagement in projects without probity risks for future Defence procurements.

DMTC's IP approach streamlines adoption and utilisation of technology developed under DMTC program activities. Partners' rights for utilisation of the IP created in projects are articulated in the engagement agreements, removing the need for negotiation of usage licenses after the IP has been developed.

Agreements outline the IP framework for each project, including a detailed strategy for IP ownership and protection, an inventory of background IP provided by project partners and licensing details for commercial exploitation by industry partners of project IP.

This model drives effective engagement with multiple partners across a supply chain, ensuring partners collaborate, rather than compete, within a project as the use of project outcomes by each project partner are clearly articulated and defined.

DMTC partners retain ownership of the IP they bring to a project at all times. As most DMTC projects involve multiple industry partners, DMTC's IP policy follows the Innovation Hub's Principle 5, whereby DMTC assumes a coordination role and provide licences to each partner.

Partners are encouraged to apply IP across dual-use target applications. For industry partners, this offers benefits beyond the DMTC project including greater competitiveness and supply chain integration.



Dr Donghong Ding of UoW additively manufacturing using the wire arc welding process.

Find out more at: www.dmtc.com.au

Follow us on LinkedIn
www.linkedin.com/company/dmtc-ltd
and Twitter @DMTCLtd



DMTC Ltd
Level 2, 24 Wakefield Street
Hawthorn Victoria 3122 Australia
Phone: +61 (3) 9214 4447
Email: information@dmtc.com.au