



## From the CEO

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It has been a busy start to 2018 on many fronts for DMTC. For me, a big focus has been continuing to engage with our Defence customer and with other stakeholders in the Defence innovation system.

While our commitment to build Australian industrial capacity and invest in excellent research remains as strong as ever, it's the connection to our Defence customer that really cements DMTC's reason for being. Leveraging the seed funding that Defence provides, we can orient our efforts to maximise the value that is extracted from every dollar of cash or in-kind investment; and contribute to better outcomes for the women and men of the Australian Defence Force.

We have also been busy putting the final touches on our preparations for the Annual Conference, and maintaining that balance between delivering on existing project commitments and commencing new project activities. Some of those new projects are mentioned in this newsletter. Another exciting new initiative that is just getting underway is our first international PhD collaboration.

I'm really excited by the lineup of speakers for our Conference, and the opportunity to catch up with many friends and long-time collaborators. We are very proud to have both the Minister for Defence Industry, the Hon Christopher Pyne MP, and Senator David Fawcett confirmed to attend. I'm confident that the Awards Dinner will be special, as it always has a way of turning out to be.

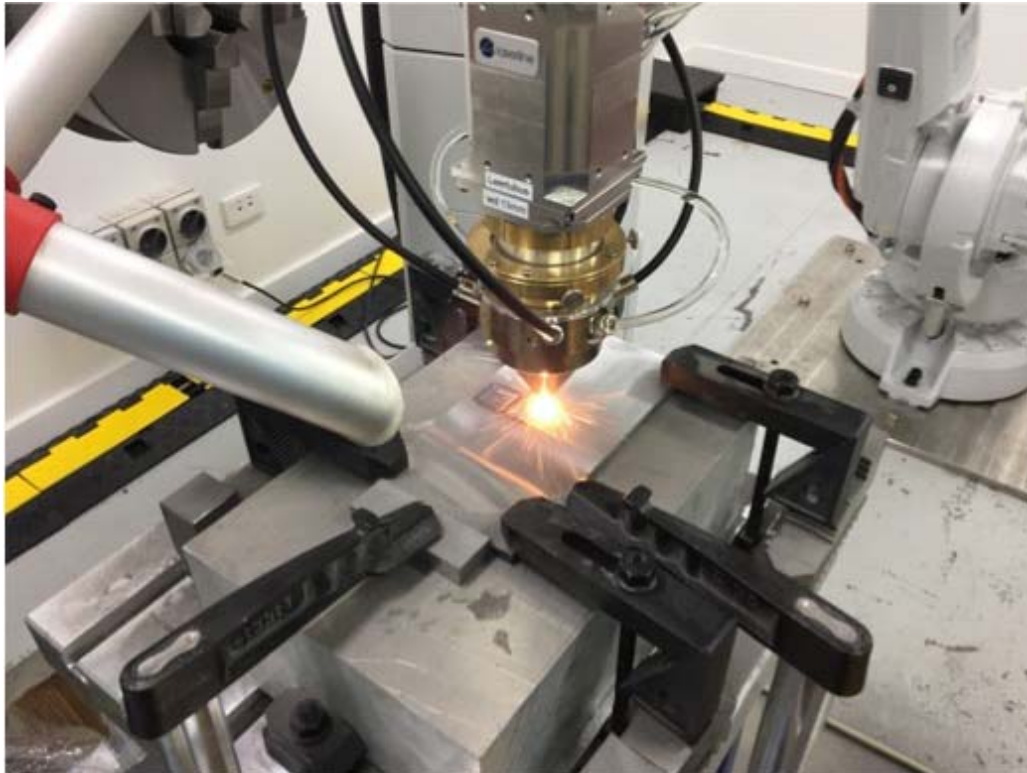
Our final newsletter for 2017 included a number of farewells, marking both retirements and decisions to move on to different roles. It's with much regret that I acknowledge another change in our team here. Jane Tisdall has been with us for many years and provided great service to the company, but a restructure of our corporate and finance functions has necessitated a change in the staffing structure. I'm grateful to Jane for the way that she has dealt with this news, and I look forward to keeping in touch about the next chapters in her professional career. I want to take this opportunity, on behalf of the broader DMTC community, to put on record our thanks to Jane for her many contributions to DMTC over the years.

I hope to see as many of you as possible at the Annual Conference.

**Dr R. Mark Hodge**  
**CEO, DMTC**

## Laser repair springboards off CTD Program

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*Pictured: the laser cladding set-up at RUAG Australia.*

A DMTC project on laser repair capability is making significant inroads, and is on target to achieve certification of repairing key aircraft components later this year.

Development of the technology – which originated in a Capability Technology Demonstrator (CTD) project managed by DST Group in Defence - has now progressed to the mid-TRL range where the expertise of DMTC and its industry and research partners comes to the fore.

The DMTC project team, comprising RUAG Australia, Swinburne University of Technology, RMIT and DST Group, is focused on demonstrating the repair capability through coupon testing of materials used on current military aircraft. (A coupon is a small sample of the material under test that has been prepared in such a way that its failure mechanism will be representative of the larger production pieces.)

Mr Neil Matthews, VP of R&D at RUAG said he was confident that the work currently being undertaken by RUAG, Swinburne and RMIT would result in trial applications on actual aircraft components before June 2018.

## Medical Countermeasures Program seeks new partners

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DMTC is seeking medical research and industrial partners to join Round 3 of DMTC's Medical Countermeasures (MCMs) Program.

Program Leader, Dr Felicia Pradera, has called for expressions of interest (EOIs) for the program, which is supported by funding from CSIRO and the Australian Government's Next Generation Technologies Fund. The opportunity for EOIs opened on February 29 and will close on 14 March.

Informational briefings on the program were held in New South Wales, South Australia, Queensland and Victoria throughout February. Dr Pradera said there had been about 30 attendees at each briefing session, with the exception of the Victorian session, which attracted twice that number.

"The response to the briefings has been really positive and I've been really pleased that there's so much interest in being a part of the Round 3 MCMs program," she said.

For more information: <https://dmtc.com.au/our-activities/call-eoi-mcm/>

## Defence innovation system reaps rewards

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DMTC CEO Dr Mark Hodge, has reinforced the value of Australia's Defence innovation system at the ADM Congress 2018 in Canberra.

The annual event, which was attended by more than 600 delegates this year, is an important platform for updates from industry, defence and government. Dr Hodge was part of a panel discussion involving Karen Stanton (CDIC Advisory Board) and Pierre Marchadier (Dassault Systèmes).

"As much as some in industry might be concerned, or even impatient, about the speed of its implementation, DMTC's view is that the structure of the Defence innovation system is solid and there is a need to 'stay the course' to realise its full potential," said Dr Hodge.

As an example of the model's success, he cited the DMTC collaboration between UOW and Thales Australia engineers on improving Hawkei welding technology early in the process, which resulted in significant cost savings in the longer term and opportunities for application to other platforms.

Dr Hodge also addressed a parliamentary inquiry on 23 February in support of the Defence innovation system, tackling criticism of its efficacy.

"Innovation and collaboration are difficult, but the rewards are considerable, and I must vehemently disagree with recent assertions in the press to the effect that local industry and innovation introduce cost, schedule and technical risk into acquisition, sustainment and operations.

"To the contrary, effective engagement with local industry and the research and innovation sector can act as a powerful risk mitigator. It is heartening that current policy settings reflect this reality."

Dr Hodge's statement to the JSCFADT Inquiry can be viewed here:

<https://dmtc.com.au/wp-content/uploads/2018/02/Inquiry-Bipartisanship-Statement.pdf>

## New projects in the pipeline

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The commencement of new DMTC projects – and, with them, the addition of new industry and research partners to the DMTC community – is another validation of our engagement model and the work to broaden our portfolio of activity.

Recent examples include:

- **Enabling Technologies (Program 3):** A new project to extend existing knowledge of the benefits of hybrid composite materials for Defence applications. This project marks the first involvement of Imagine Intelligent Materials in the DMTC along with a number of existing research partners;
- **Medical Countermeasures (Program 10):** The Australian Rickettsial Reference Laboratory will work with DMTC and DST Group to investigate and enhance the capacity of the Film Array Warrior Panel (an existing multiplex diagnostic device) to diagnose Q fever strains that are endemic in Australia;
- **High Altitude Sensor Systems (Program 11):** A new \$1.1 million DMTC project to advance the development of miniaturised, high-frequency sensors for deployment on cubesats and other unmanned aerial platforms. This project involves new DMTC partners Seaskip Pty Ltd and UNSW; and
- **Air (Program 5):** A new project involving the University of Wollongong and Lockheed Martin Corporation to test robotic path planning capabilities for the deposition of aluminium alloys using wire arc additive manufacturing (WAAM) processes.

The DMTC community welcomes its new partners and looks forward to watching the progress of these exciting new projects as they move through the Technology Readiness Levels pathway.

## Last call to register for DMTC Annual Conference!

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*Pictured: Last year's Annual Conference in Canberra was well attended.*

DMTC's Annual Conference is approaching fast, so please register ASAP if you would like to attend. The conference will be held on 20 and 21 March at the QT Hotel in Canberra.

The Gala Dinner will be held on the evening of 20 March at the National Gallery of Australia and will include the presentation of DMTC's Awards for Excellence as well as the opportunity to hear from a distinguished Guest Speaker.

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